THE POLITICAL ECONOMY OF UNEVEN RURAL DEVELOPMENT: THE CASE OF THE NONFARM SECTOR IN KERALA, INDIA

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ABSTRACT

The rural nonagricultural/nonfarm sector (RNFS) has been gaining prominence in (rural) development theory and practice in many developing countries of the world since the 1970s. It is widely argued that the RNFS is able to generate employment and reduce poverty in rural economies, which are otherwise plagued by a stagnant agricultural sector. The existing literature on the RNFS has situated the development of the RNFS in terms of its economic linkage with rural-agricultural or urban-industrial sectors. While this literature has contributed to our understanding of the RNFS, it has not adequately explained the processes and outcomes of RNFS in relation to its capitalist class character. In other words, there is a dearth of political-economic analysis of an important sphere of economic activity. This inadequacy along with the fact that much of the research on rural capitalist relations (i.e. on rural political economy) has been on rural-*agricultural* activity, define the points of departure for this research project.

This dissertation examines the historical-geographical development of capitalist/class relations of non-agricultural activity within rural spaces. The study is contextualized in the coir industry -- an important rural nonagricultural industry -- in Kerala, India. The empirical findings of this research show that class differentiation and class relations in the RNFS emerge historically and spatially, driven by the principles of commercialization, capitalist accumulation, profit maximization and competition. Colonialism set the stage for the initial economic subordination of labor under capital in the coir industry, establishment of capitalist market and formation of a huge reserve army

of surplus labor. Production in the industry is dominated by its capitalist form. Relations to property and labor power are expressed in a variety of place-specific forms. These include not only relations between private capital and labor but also capital-labor relations in the cooperative and state-managed sectors. A large section of the economically active population in the coir sector, which can be called a reserve army of labor, is 'self-employed' and connected to the capitalist system in the realm of exchange relations. Employers employ workers at low wages and control them through various mechanisms including technological control at the point of production, which workers accept owing to their vulnerable conditions in the struggle for a living wage. Class relations also condition and are reinforced by non-class relations of gender and caste in the coir industry.

The extent to which the productive forces can develop in the RNFS is dialectically related to the social character of its relations of production. In the context of the coir industry, the increase in market demand for coir globally in recent years has prompted the state to introduce technological changes in the technologically backward raw material sector of the coir industry. While the state has achieved some success in this regard, the sustainability of technological change is conditioned by a host of contextual factors specific to the production structure and the underlying relations of production in the coir industry, causing a variety of crisis-situations in the sector. The state in India has been playing an important role in the market-oriented development of the RNFS (as in agriculture) including the coir industry, since the colonial era to the recent neoliberal era.

In more recent times, the neoliberal state intervenes as and when necessary to facilitate the process of capitalist accumulation (domestic or foreign) by exploitation of the poor workers in the coir sector within rural areas. The state promotes market-led economic growth in the RNFS not only objectively but also ideologically -- through so-called 'inclusive' development policies for the workers. It also intervenes in curbing active labor resistances through coercive means.

Contradictions in the development of the productive forces and unequal class relations in the RNFS have implications for its development outcomes in terms of employment, wages and income as well as the social and physical wellbeing of the rural population engaged in it. The vulnerable conditions of the coir working class in terms of employment and wages are partly caused by the contradictions of the capitalist production process, unequal class relations and practices in the coir industry and failure of the state to protect them. The developmental outcomes of the RNFS are also socially stratified along the lines of non-class relations such as gender and caste as conditioned by pre-existing class relations in specific places and over time. The uneven and technologically backward nature of the capitalist production system and resultant vulnerabilities of the working class are also causally associated with the decline of working class resistance to exploitation in the coir industry in Kerala, which is traditionally known for working class struggles.

I dedicate this dissertation to my parents- Ma-Deuta, my brother- Mimon and husband Ajay

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LIST OF ABBREVIATIONS

BC-Backward Castes
CEO-Chief Executive Officer
EP-Exporter-Producer
FAO-Food and Agricultural Organization
FC-Forward Castes
FICCI-Federation of Indian Chambers of Commerce and Industry
FICEA- Federation of Indian Coir Exporters Association
FTA- Free Trade Associations
GDP-Gross Domestic Product
GNP-Gross National Product
GOI-Government of India
HDI-Human Development Index
ILO-International Labour Organization
IMF-International Monetary Fund
IRDP-Integrated Rural Development Program
LDC-Less Developed Countries
MA-Master of Arts
MoP-Ministry of Planning
MSME-Micro, Small and Medium Enterprises
NABARD-National Bank for Agricultural and Rural Development
NGO- Non Government Organizations
NSDP-National State Domestic Product
NSSO- National Sample Survey Organization
OBC-Other Backward Classes
RNFE-Rural Nonfarm Employment
RNFS-Rural Nonfarm Sector
SC-Scheduled Caste
SGSY- Swaranjyoti Gram Swarozgar Yozana
SIDCO-State Industrial Co-operation
SME- Small and Medium-scale Industries
SSI-Small Scale Sector
ST-Scheduled Tribe
UNIDO-United Nations Industrial Development Organization
USAID-US Agency for International Development
VSI-Village and Small-scale Industries
WTO-World Trade Organization

Chapter I: Introduction

1.1. Introduction:

The World Development Report of 2008 predicted that:

> 'Even with rapid urbanization, the developing world is expected to remain predominantly rural in most regions until about 2020, and the majority of the poor are projected to continue to live in rural areas until 2040.' -- World Development Report, 2008: 29 based on United Nations Projections, 2004.

This prediction is of considerable merit given the current state of the rural economies in most less developed countries (LDCs) in recent years. A significant share of population in these countries being rural in nature, agriculture is the mainstay of the rural economy and a significant contributor to the national income. Rural development in these countries therefore revolves around agricultural growth and resultant employment and income. However, with most LDCs grappling with the post neoliberal agrarian crisis of agricultural growth, decreasing share of agriculture in the gross domestic product, unfavorable agrarian terms of trade and resultant decline in productive employment in the agricultural sector, the question of rural development has come under purview once again. Because of the fact that most rural development programs adopted by state governments in the LDCs have not yielded desired outcomes in terms of employment and growth in incomes or that many urban led industrial programs since the 1950s post-colonial era have not been able to absorb backlogs of unemployed reserves of rural surplus labor, rural development issues have come to the forefront of development policy concerns since the 1970s.

There has been a common consensus in the development studies literature about

the fact that agriculture will not be able to provide 'productive employment' to an ever-growing rural surplus population in the coming decades. Here the conceptual understanding of 'productive' employment can be best contextualized in the recent agenda of "*achieving full and productive employment and decent work for all, including women and young people*" as part of the Millennium Development Goal, 2000 of the United Nations (United Nations, 2006). The International Labor Organization (ILO) defines productive employment as 'employment yielding sufficient returns to labor to permit the worker and her/his dependents a level of consumption above the poverty line' (ILO, 2009). Alternatively, 'the deficit of productive employment consists of those who are in the labor force but do not have productive employment. This takes two forms: the working poor and the unemployed' (ILO, 2012).[1] It has been argued that although agriculture in several developing countries has been witnessing substantial growth in output due to technological innovations, the capacity of the agricultural sector in labor absorption has not been satisfactory, particularly in areas with adverse land-person ratio and high density of rural population (Lanjouw and Lanjouw, 1995; Simmons and Supri, 1996; Bhalla, 2005).

It is in this context that the rural nonagricultural/non farm/off-farm sector (RNFS) has gained considerable attention in the academic literature as well as in development planning and policy circles in recent years. It is seen as an alternative possibility for rural

[1] Debates over productive employment have also raised questions as to whether technological innovation in agriculture is leading to displacement of the labor force. Or have led to a decline in rural productive employment. Or alternatively, is productive employment decreasing due to low productivity in agriculture (Employment Outlook, 1993).

development through the prospect of generating employment opportunities outside agriculture but within rural areas. There are multiple definitions or rather descriptions of the rural nonagricultural sector and its activities. At a general level, the rural nonagricultural sector is defined as comprising of all non-crop agricultural activities including manufacturing, mining and quarrying, transport, trade and services in rural areas (Kumar, 2008). A more specific definition regarding the nature of work in the non agricultural sector is as follows-'the rural non-farm economy (RNFE) may be defined as comprising all those activities associated with waged work or self-employment in income generating activities (including income in kind) that are not agricultural but which generate income (including remittances etc.) in rural areas. In some contexts rural non-farm activities are also important sources of local economic growth (e.g. tourism, mining, timber processing, etc)' (Davies, 2003:5 for NRI, DFID and World Bank). The potential of the rural non-agricultural sector in employment generation, poverty reduction and rural development has been greatly promoted – mostly ideologically -- by global macro institutions like the World Bank and FAO (Food and Agricultural Organization) and their country specific counterparts.

Rural employment and economic diversification into nonagricultural activities is claimed to have been already playing a prominent role in absorbing the many agricultural workers and small farmers being squeezed out of agriculture (IFPRI, 2009). A brief from the International Food Policy Research Institute highlights the following:

> 'Rural residents across the developing world earn a large share of their income—35–50 percent—from non-farm activities. Agricultural households count on non-farm earnings to diversify risk,

> moderate seasonal income swings, and finance agricultural input purchases, whereas landless and near landless households everywhere depend heavily on non-farm income for their survival. Over time, the rural non-farm economy has grown rapidly, contributing significantly to both employment and rural income growth (IFPRI Issue Brief, 2009)'.

It has been argued that rural non-farm employment can play a pivotal role in decreasing rural to urban migration, providing incentive to agriculture through inter-sectoral linkages and reducing demographic pressure on land (Lanjouw and Lanjouw, 1995; Bhalla, 2005; Ranjan, 2006). Rural non-farm activities, particularly rural industries, are less capital- and more labor-intensive, employing local labor and resources (Ranjan, 2006). It is also significant in providing employment opportunities to socially marginalized groups of rural population such as women and low caste/status groups (Unni, 2005; Thorat and Sabharwal, 2005; Ranjan, 2006). Many others have argued that the non-farm sector is an important part of the economy especially after the trade reforms in the 1990s, as it would be an added advantage to boost those activities which would enhance the export drive of the country (Nayyar and Sharma, 2005; Bhalla, 2005).

Various studies have pointed out a number of factors that influence the growth of the RNFS and the shift of agricultural labor force to rural nonfarm employment. Some studies emphasize various linkages – agricultural and industrial, rural and urban as well as inter-sectoral linkages (consumption, trade, forward/backward linkages etc.) -- in facilitating or retarding the growth of the RNFS (Hirschman, 1958; Mellor, 1976; Anderson and Lierson, 1980; Harris, 1987; Hazell and Haggblade, 1989; Chandrasekhar, 1993; Lanjouw and Lanjouw, 2001; Start, 2001; Reardon, 2008). Other studies emphasize the role of micro-capacity building factors (in the form of education, income

and assets, infrastructure, location, labor reserves as well as the role of the state in aiding the development of such factors) that determine the relative success or failures of the RNFS (Reardon, 1998; Davies, 2003; Wandschneider, 2003; Coppard, 2001). Advocates of neoliberal globalization consider such processes to be promotional of the RNFS (Reardon and Barret, 2000; Davies, 2003) whereas, opponents argue that liberalization of national economies and unequal terms of trade, international competition in production processes and the withdrawal of the state from rural development have been detrimental to the growth of the RNFS in recent years (Saith, 1992; Rozegrant and Hazell 2001; Start 2001;Kristiansen, 2003. The existing literature also points out that the determinants of the RNFS are geographically variable across the developing countries.

The existing literature also sheds light on various developmental outcomes of the RNFS. One of the significant developmental implications of the RNFS is to reduce poverty in rural areas. Kumar (2008) argues that the importance of the nonfarm economy lies in the fact that it creates alternative source of income for the majority of rural poor that are either part-time farmers or farm laborers. Furthering this, Bhalla and Chadha adds that 'rural income distribution is much less unequal in areas where a wide network of non-farm avenues of employment exists; the lower strata of the rural societies participate much more intensely in non-farm activities, though their involvement is much less remunerative as compared with that of the upper strata' (Bhalla and Chadha: 1983: 95-101). The consensus among these scholars seems to be that the rural non-farm sector plays an important role in reducing the inequality in income distribution across different

sections of the society. For instance, the rural non-farm sector can provide opportunities for employment to seasonal landless agricultural laborers who mainly work in the agricultural season and remain slack for the rest of the year. It has been found that wages in the RNFS is relatively higher than in agriculture. So, it is argued that the significance of rural non-farm sector is in providing employment during slack seasons thereby smoothening the rural household's income flows and improving their standards of living and wellbeing (Anderson and Leirson, 1980; Kumar, 2008). In this regard, the RNFS is considered to be a viable and lucrative opportunity for alternative forms of employment in the rural areas, outside agriculture.

1.2. Statement of the Problem:

Although the existing literature on the RNFS provides an insightful description of the trends and patterns in the RNFS, it suffers from several problems. First, and most importantly from the theoretical vantage point of this dissertation, the existing literature overlooks the class character of the RNFS, i.e. its social relations of production. Inability to comprehend class as a relation of exploitation in the existing literature limits its scope of explaining the differential access and outcomes of the RNFS, constraints in the process of its development and its geographical variations. The RNFS is treated as an a-historical category: in other words, its capitalist form of development is under-recognized and often completely ignored. Second, the existing literature underemphasizes the role of the state and state policies in the capitalist form of the development of the RNFS. The state is a

promoter of capitalist accumulation processes, an imperative that is manifested in its policies and actions towards the RNFS, leading to the uneven development of RNFS across geographical spaces and time. All this is often overlooked. Third, just as class as a relation of exploitation is not discussed in RNFS studies, similarly, various non-class bases of inequality (gender, race/ethnicity, caste) as they operate in the RNFS in relation to class relations are not explored. In other words, the neglect of class and non-class aspects of the RNFS studies means that the RNFS is not adequately seen in terms of its complex *social* relations. Fourth, the existing literature lacks a historical materialist understanding of the RNFS: one that abstracts the RNFS in *relation* to other aspects of a capitalist economy; which defines the RNFS as a continually evolving *process* in time and place; the RNFS seen as evolving from its own *contradictions*; and the RNFS seen as a *mechanism* in the capitalist process of accumulation. Alternately, the treatment of the RNFS as a discrete process that is contingent to specific requirements in certain place and time, is *presentist* or a-historical in its approach. Fifth, from a geographical perspective, the existing literature lacks an understanding of the varied geographical outcomes of the RNFS as conditioned by place- and scale-specific aspects of social relations of production. Even in the context of place specific studies, there is not much reflection on the relationship and interaction between various scalar processes in the development of the RNFS over time and space.

Based on these critical gaps in the existing literature, the problematic of the current research is focused on an understanding of the historical-geographical

development of capitalist relations in the RNFS -- evolving from its own contradictions -- outside of agriculture but within rural spaces. The central question of this research is quite precisely this: class relations develop and is a consequence of capitalist development of the RNFS -- seen as the dialectical relation between the forces and relations of production -- as mediated by the state, which produces uneven social and spatial outcomes. This research is informed by the Marxist Political Economy approach towards understanding issues related to (rural) development in its spatial context. The development of capitalism in rural spaces has always been contextualized and debated from the vantage point of the agricultural sector and the agrarian society. Scholars from Kautsky (1899 as cited in Das 2007) to Lenin (1899) have explained the development of capitalist class relations primarily, if not exclusively, in agriculture. However, the formation of capitalist relation of production in the RNFS, as emerging from its internal contradictions (at a systemic level and based on its class dynamics), has never been fully explored. This is problematic, given that in more recent times, the nonagricultural sector has emerged as an independent economic sector in rural areas. Drawing directly from Marx and Lenin's (1957) work and insights from other Marxist and critical non-Marxist researches, I conceptualize the historical-geographical development of capitalist relations in the RNFS -- evolving from its own contradictions -- outside of agriculture but within rural spaces. The framework for this study is based on four conceptual building blocks: social relations of production, productive forces, role of the state, and concrete

development outcomes of capitalist production in RNFS in the context of class and non-class relations of oppressions.

Social relations are based on people's relationship to one another and their relation ownership/control to the means of production and labor power in the process of the production of a commodity. The category of social relations draws attention to relations of dependencies and exploitation between large groups of people. Relations of production along with productive forces at a given point in time, form the economic sphere of a society. Both relations and forces of production evolve in the course of the production process with variations over time and space. The historical development of the production process associated with the RNFS in India has been essentially driven by the development of capitalist market relations -- outside agriculture but within rural spaces – since the colonial period and intensified in the current neoliberal period. Such processes resulted over time in the formation of classes and specific class relations. The differential ownership of the means of production (between the propertied and the laboring classes) – as in the case of the coir industry in Kerala -- leads to the development of intra-class competition, internal class fractions and class polarization as well as forms and relations of exploitation and control of the workers by the propertied classes.

Productive forces or forces of production comprise labor power and the means of production necessary for human existence in a given society. Productive forces are essential for a labor process to occur, whether in its simple/general form or socially specific (e.g. capitalist) form. The capitalist labor process is differentiated from the

simple labor process in the sense that the latter is based in the creation of surplus value – in its absolute and relative form -- and its appropriation from the working class by the capitalist class or its representatives. Productive forces have a tendency to constantly and systemically develop to a higher level in a capitalist production system. The development of the productive forces in a given society, at a given point in time and space, is dialectically related to the nature of the social relations of production. The latter either promotes or creates fetters for the development of the former. Development of the forces of production in the context of specific relations of production is also influenced, to some extent, by the nature of class struggle: class struggle from above (capitalists struggle to maximize profit and control labor) and to some extent class struggle from below (workers' resistance against capitalist technological developments). The integration of the RNFS to the global circuits of production in more recent times has intensified the need for technological revolution in the means of production to increase the productivity of labor. However, the development of the productive forces, including changes in technology, depends on specific historical-geographical contexts, which vary over specific places and at given times, in their process of interaction with the capitalist imperative to maximize profit and accumulation of capital.

The dialectical relation between the forces and relations of production is mediated by the state, which reflects in its specific policies for development. The state in a capitalist society protects the economic and political interests of the capitalist class.[2] In

[2] 'The dominant classes are, in political terms, the fundamental support base of the state and, in economic

the context of the RNFS, the state is a *necessary* condition for its capitalist economic development. An examination of the class character of the state is important for assessing the differential biases and uneven outcomes of the state policies for the RNFS. The RNFS in recent times has to be seen as a neoliberal state-driven project wherein the state intervenes to facilitate capitalist accumulation by exploitation of the poor workers outside the agricultural sector but within rural spaces.

The contradictions that unequal class relations impose on the development of productive forces produce uneven developmental outcomes over time and space. Uneven development of the productive forces has consequences for economic development as well as social wellbeing. Development implications in the context of the RNFS are also socially stratified along the lines of non-class entities like gender and caste. Differentiation of non-class entities (gender/caste) in the RNFS is conditioned by pre-existing class relations in specific places and times. The uneven development outcomes in the context of the RNFS should be contextualized as a consequence of unequal class relations, wherein relations of exploitation are articulated with forms of social oppression, which condition the gender and caste biased access to social and economic opportunities for the working class.

Thus an alternative framework will address the class character of the RNFS in its attempt to understand the capitalist character of the development of the RNFS in terms of the dialectic of its forces and social relations of production. Although the scale of this

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terms, its most important beneficiaries. The state protects their property rights when these are challenged, thereby protecting their political interests' (Das, 2007:411).

research is local -- the coir industry as a specific type of RNFS activity in India's Kerala context-- the conceptual abstractions derived in reference to the larger historical and spatial processes of accumulation happening at higher scales (national and global) will have wider relevance. An analysis of how global processes of capitalist accumulation unfold in specific places will reveal the specific ways in which rural capitalist accumulation takes place outside of the agricultural sector.

1.3. The Context of India and Kerala and the Relevance of the Case Study:

The 61st quinquennial round of the National Sample Survey Organization (NSSO) in India for 2004-2005 suggests that the sectoral employment of the workforce in agriculture still accounts for 60 percent of the total population, but the current sectoral contribution of agriculture to the Gross Domestic Product (GDP) is only 21.8 percent (EPW research foundation (2004), *National Accounts Statistics of India 1950-51 to 2002-03*). This indicates that agriculture has not been able to provide productive employment in India's rural areas in recent years. On the other hand, large scale urban industrial strategies introduced in most developing countries including India in the 1950s have failed to absorb the huge backlog of unemployed and under-employed workers in agriculture (Simmons and Supri, 1996, Eapen, 2001). Rural development programs adopted by the state did not succeed as well as expected in most cases. The slowdown in employment in Indian agriculture in recent years can be traced by looking at the farm sector in three consecutive periods. The first phase immediately after independence in the

1950s was the phase of economic planning. Initially, it was large-scale industrial development mostly in urban areas, which was emphasized in the five-year plans. However, the 1960s saw a shift in the focus of the plans towards agriculture. This was the period of institutional reforms-land reforms- in rural areas (Byres, 1997). Thus high employment in agriculture during this period was the result of increasing output due to increase in the net sown area. In the second phase of the Green Revolution in the 70s, the yield increases accounted for 90% of all output growth. However, in most pioneering regions of the green revolution, labor-displacing mechanization was adopted partly but not entirely, in response to rise in the real wages from the mid 1970s onwards. This was also the time when crop diversification was introduced in agriculture with a combination of food crops along other high value crops like rubber, tea, coffee, coconut, etc., mostly for export purposes (Kurosaki, 2005). This called for speed up in production by increased mechanization. As a result of increased mechanization, by the mid 1970s, agricultural employment growth rates began to slow down. The current phase after the 1980s has led to further deceleration of the agricultural employment growth rate because farm output growth rate has declined considerably (Bhalla, 2005).

This process of rural change has led many to argue that the rural society has been undergoing remarkable structural transformation in India with a slow transformation of labor from the farm to the non-farm sector (Chandrashekhar, 1993; Unni, 1998). Compared to the decline of growth in agricultural employment, the growth of male employment in the non-agricultural sector rose from 23 percent in 1983 to 34 percent in

2004-05 (NSSO, 61st survey as cited in Abraham,). Recent World Bank data however also shows that there has been a slow increase of female employment in the non agricultural sector in India recording 13.3 percent of female workers to total workers in 1992 to 18.1 percent in 2005 (World Bank, 2005). Many studies on rural nonagricultural employment in India argue that such employment has been distress-induced due to the stagnation in the agricultural sector (Vaidyanathan, 1986; Abraham, 2009). However, such distress tendencies make the rural nonagricultural sector a low-return, low-productive, residual sector used by rural household for subsidiary incomes. Recent statistics also reveal that the total share of informal employment in the non agricultural sector in India has grown to a high of 83.4 percent in 2009 and ranks highest among the developing and less developed countries of the world (OECD, 2009). The nonagricultural informal sector also contributed 30.20 percent to the Gross Domestic Product of India in 2000 (OECD, 2009). The growth of the informal economy particularly in rural areas is also highly relevant from the perspective of neoliberal development since 1980s due to the integration of rural manufacturing processes and services to global markets, trade and exchange systems.

The dynamics, trends and patterns of nonagricultural employment in rural India are geographically uneven. The development of the RNFS in the northern Indian states of Punjab or Haryana is based on surplus capital diversification of farm households into nonagricultural activities in the post green revolution era (Bhalla, 2005). But, in many other agriculturally oriented states, there has been a trend of employment diversification

into the rural non-agricultural sector due to distress conditions in agriculture as mentioned above. The case of rural nonagricultural employment in the southern state of Kerala however, has exhibited a unique historical trajectory. Kerala has had historically high incidences of rural nonagricultural employment in India, particularly in rural industrial manufacturing processes (Eapen, 2005). Based on the National Sample Survey (NSSO) results for its specific round on non-agricultural employment in India for 1993, more than 50 percent of rural employment is in the rural nonagricultural sector (Kumar, 2008). Nonagricultural employment in Kerala not only has a long history, but also it has been important from the viewpoint of capital as well as labor. An early commercialization of the agricultural economy due to Kerala's linkages to the global markets in the colonial era led to a nonagricultural orientation of rural employment as early as 1880s. Kerala has been one of the pioneer states of India, which had had global trade linkages as early as the 1820s. Colonial rule and consequent trade and export oriented production not only brought about a transformation from labor-intensive to capital-intensive cropping patterns, but also established traditional rural manufacturing processes based in locally available tropical resources. These traditional rural industries have been since then the backbone of Kerala's industrial economy. Even after Kerala became an independent state after the colonial rule, rural industrialization played an important role in employment generation in the state.[3] These industries also provide large-scale employment to the rural non-agricultural workforce and have been

[3] Kerala's modern industrial sector did not take off in a similar pattern as in many other states in India in the post -colonial era between 1950s till 2000. Refer to Chapter VI for explanation.

contributing significantly to the export revenue of India and Kerala. The rural nonagricultural sector (manufacturing) in Kerala has grown at the rate of 1.75 percent between 1997-98 and 2007-08 compared to 0.21 percent growth in agriculture during the same period (Based on Central Statistical Organization's NSDP (National State Domestic Product) database, as cited in Kannan, 2011). The most recent neoliberal economic restructuring has had however, adverse impacts -- in terms of growth and productive employment -- on many such traditional rural industries like the coir industry in Kerala.

The coir industry is an important form of rural industrialization and avenue for non-farm work force diversification in India in general and particularly in Kerala. Coir, which is the fiber extracted out of the coconut fruit, is processed into yarns which are made into finished products like mats, mattings and other forms of industrial and agricultural products for exports to different countries globally. Among the major provinces of the Indian state, the coir industry is the most significant source of non-farm employment after agriculture in Kerala, employing more than 10 *lakh*s (1 *lakh* is equal to 100,000) population in rural as well as urban areas (Central Coir Research Institute, 2009). Non-farm activities, mainly industrial processed goods in Kerala, like coir, have been historically linked to the external markets globally. Traditionally, India has been the highest exporter of coir yarn followed by Sri Lanka, together contributing almost 90% of the global coir production. The history of the coir industry dates back to the colonial period. The need for a cheap insulate to maintain comfortable living environment in residential buildings in many developing countries and the linkage of India with British

rule endeared investors from England to expand the product sector of the industry in Kerala. The developed countries -- USA, E.U. Countries, Australia, Japan and Korea -- are the major importers of yarn and products (FAO, 2001). The United States, with about 37%, and the European Union Countries with about 47%, account for the major coir exports from India (Coir Board, 2003). Among the various forms of non-farm activities, the coir industry is among the few agro-based industries (others export unprocessed products like rubber, spices etc but are not essentially value added goods) that produce both for the domestic as well as the international markets. The export of coir products for the financial year 2007-08 witnessed 11.15 percent increase by exporting 1,87,566 tones in volume (The Hindu, May7, 2008). According to the latest estimates, coir exports achieved an incremental value of 0.457 million USD in December 2008 and the total exports currently stands at 9.974 USD million with a dispatch of 12,170 tonnes in volume. This is an annual increment of 4.8 percent by the end of the year 2008 which signifies the growing importance of the coir products in the total volume of value added exported commodities in India (The Hindu, Jan 13, 2009). The economic restructuring in the 1990s had significant implications for the development of the non-farm sector, the coir industry being no exception. The industry has gone through massive res tructuring over the years in both the colonial and post-colonial phases, and particularly after the 1990s, in terms of the organization of production relations, labor processes, employment dynamics; capital investment and commercialization; and the increased emphasis on greater export of value-added coir products. The proposed study is an attempt to

understand relations and forces of production within the coir industry as a part of the non-farm sector in Kerala.

1.4. Objectives and Researchable Questions:

The main research questions revolve around four interrelated themes. I wish to interrogate the class basis of the coir industry as an example of a rural nonfarm economic activity, with a focus on the spatially uneven emergence of capitalist relations in the rural nonfarm sector. In relation to the class character of the coir industry, two additional themes emerge. One is the role of the state in capitalist accumulation in the RNFS in the context of the coir industry. The other theme concerns the developmental effects of the coir industry, which are place specific. I also study the distinct relationship between the class and non-class entities such as gender and caste in the context of the coir industry. The four major objectives and related research questions are elaborated below.

Objective 1: To understand the nature of class based social relations of production in the rural nonagricultural sector (in the context of the coir industry).

1.1. How have classes evolved historically and spatially in the rural nonagricultural sector?

1.2. What are the contemporary classes and the nature of class relations – understood as role of the different classes in the production process, the relations of exploitation between classes, capitalist competition and the internal relationship between fragments of the same class -- in the RNFS?

1.3. How do employers exploit and control labor in the RNFS?

1.4. How are class relations related to non-class relations in the RNFS?

1.5. How are social relations spatially organized in the RNFS?

Objective 2: To examine the development of productive forces in the RNFS (in the context of the coir industry).

2.1. What is the nature of the means of production and the types of labor used in the RNFS?

2.2. How are the productive forces spatially organized in the RNFS?

2.3. To what extent have productive forces developed in the RNFS in the context of the coir industry?

2.4. What are the factors enabling or constraining the development of the productive forces in the coir industry?

Objective 3: To study the role of state policies in the development of the RNFS.

3.1. What is the class character of the Indian state as reflected through its policies towards the development of the RNFS?

3.2. What is the historical and geographical nature of state policies for the RNFS in India?

3.3. What are the factors that influence the formulation of specific state policies for the RNFS and their specific outcomes?

Objective 4. To examine the development implications of the rural nonfarm sector in the context of the coir industry.

4.1. What is the extent of employment and unemployment understood as an outcome of the development of the productive forces in the RNFS?

4.2. What are the forms and types of wages and how does the wage structure perpetrate forms of exploitation and oppression in the RNFS (coir industry)?

4.3. What are the implications of employment and wages on social development – understood as differences in income, employment relations, physical wellbeing and gender-caste relations – in the RNFS?

4.4. What are the factors that contribute to the social and spatial unevenness of the development implications in the RNFS?

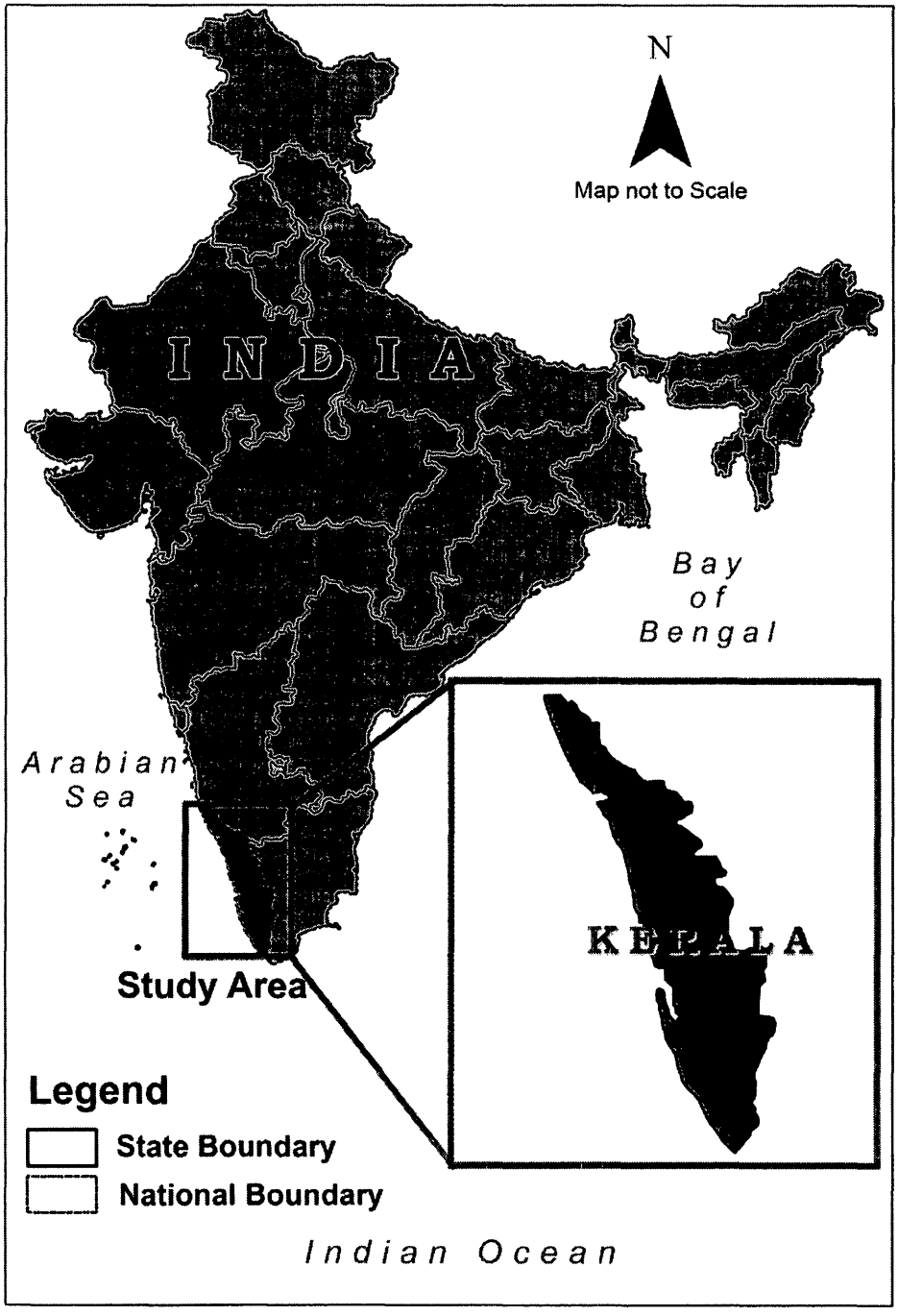
1.5. Field Area:

This research is based on the study of social relations and forces of production in the coir industry in Kerala, India. Kerala (north latitudes 8°18' and 12°48' and east longitudes 74°52' and 77°22), is a southern state/province in India extending north-south along the western coastal regions of the Arabian Sea, whereas its eastern borders are edged by the Western Ghats of the Deccan Plateau in peninsular India. The coastal length of Kerala runs 590 km (370 miles) north to south while the width of the state varies between 11 and 121 km (22–75 miles). Kerala has the lowest population growth rate in India (3.44%); has a population size of 33, 288, 000 (3.44 percent of India's population) and is densely populated with 819 people per km^2 (Census of India, 2011). The state has the highest Human Development Index (HDI) (0.790) in the country according to the

Human Development Report, India, 2011. Kerala also boasts of the highest literacy rate in the country (93.91%), the highest life expectancy (74 years) and the highest sex ratio (as defined by number of women per 1000 men: 1,083 women per 1000 men) among all other states of India (Census of India, 2011). Economically, the long coastal belts of the state and the tropical climate favor the growth of tropical spices (pepper), trees (rubber) and fruits (like coconut) making Kerala the 'land of spices'. Kerala has also been historically known for its commercial export oriented agricultural products-coconut, tea, coffee, cashew and spices.

Kerala is bordered by the states of Karnataka in the north and Tamil Nadu on its east and southeastern parts. Based on historical and cultural heritage of the state, the state is grouped into three geographical and cultural regions-Malabar Region in the north, Kochi Region in the central part and Travancore Region in the south. Kerala is divided into 14 administrative revenue districts, grouped under these three main regions. For the purpose of this research, four districts were identified as important coir producing regions in Kerala. In the order of north to south, these are: Ernakulam, Alappuzha, Kollam and Thiruvananthapuram districts.

Map 1.1. Field Area



Although coir related activities (particularly raw material extraction and processing into yarn) take place to some extent ubiquitously in almost all districts of Kerala, these four districts are the most prominent in terms of coir production. They are geographically connected to each other as a continuous coir belt, covering all stages of coir production (from raw material extraction to finished product). The share of non-agricultural population to total population in the field districts were 57.43 percent in Alappuzha, 48.90 percent in Ernakulam, 70.58 percent in Kollam and 56.74 percent in Thiruvananthapuram according to 1991 census (Census of India, 1991 as cited in Manjula, 2002).

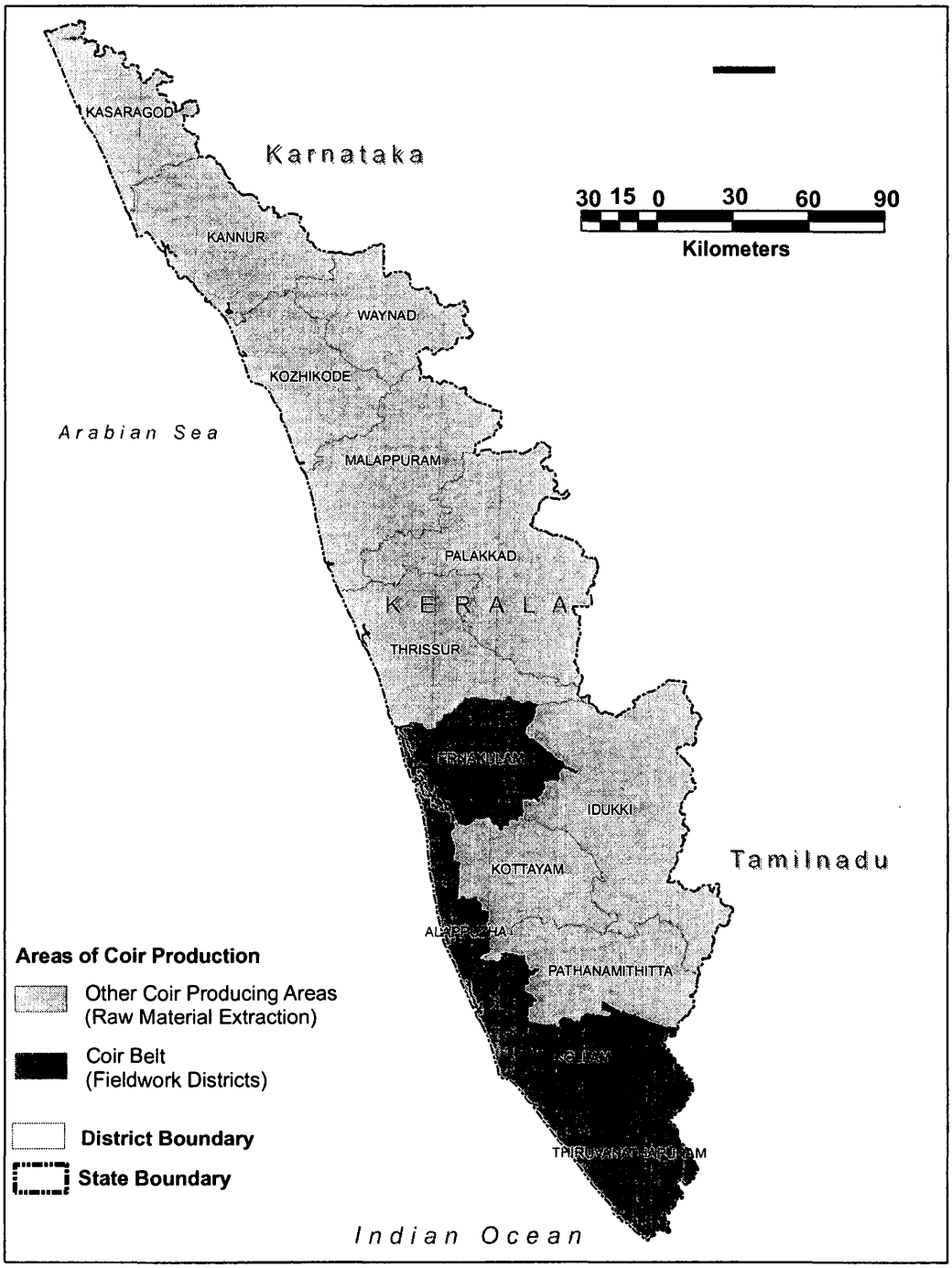
Alappuzha (British Alleppey) is recognized as the coir capital of India (NABARD, 2009-10). Alappuzha had 6.36 percent of the total population of the state (33, 387, 677) according to 2011 provisional census reports of India (Census of India, 2011). Rural population in 2001[4] was 70.64 of the total population in the district (Census of India, 2001). Alappuzha district has six subdivisions. Fieldwork was conducted in the main coir producing villages (Cherthala South, Mararikulam, Muhamma, Thuravoor, Haripad, Kayamkulam, Vayalar, Punnapra village panchayats) in the sub-divisions (Taluks) of Cherthala, Ambalappuzha and Karthikapally. Fieldwork was also conducted in the urban municipalities of Chertahala, Alappuzha and Kayamkulam from north to south. Interviews and data collection in Alappuzha covered both the raw material and finished goods production sectors of the coir industry. Fieldwork in Ernakulam district to

[4] The census population estimates for 2011 is based on provisional results and rural urban breakups of population at the district level of Kerala is not accessible at this point.

the north of Alappuzha was conducted primarily in the sub-divisions (Taluks) of Kochi (British Cochin) and Aluva (British Alwaye, Kaladi village). Ernakulam had 9.82 percentage of the total population of the state in 2011, with a rural population of 52.35 percent to the total population of the district in 2011.Fieldwork in Kochi was primarily intended for secondary data collection although some primary data was also collected.

Fieldwork in the rest of the two districts – Kollam and Thiruvananthapuram – was conducted for interviewing respondents in the raw material sector of the coir industry. Interviews in Kollam (British Quilon) were conducted in the subdivisions (Taluk) of Kollam (Kollam Town) and Karunagapally (Ochara villages). Kollam had 7.88 percent of the total population in the state in 2011 with high rural population (81.97 percent) in 2001. Fieldwork in Thiruvananthapuram (British Trivandrum) was mainly conducted in Thiruvananthapuram Municipal Corporation for collection of secondary archival and government based data as well as for conducting interviews with academic scholars and researchers in various educational and government institutions. Also interviews were conducted in Chirayinkeezhu village in Chirayinkeezhu sub-division (Taluk). Thiruvananthapuram had a total population of 9.91 percent to the total population of Kerala in 2011 and 66.2 percent of the total rural population in Kerala in 2001. Other than the primary fieldwork areas, I also visited Delhi and Chennai for collection of secondary data (in the form of government reports, documents, published data, archival data, collection of books and journals) at all India level and for the rest of the Indian states.

Map 1.2. Field Districts in Kerala



1.6. Methodology:

a) Research Methodology: In order to address the problem of this study and its associated research questions, I have used a combination of both extensive as well as intensive concrete research designs, which are used in a complementary relationship with each other. This is to avoid the extreme standardization or superficial representation of acquired data in the field (Sayer, 1992). This method is adopted after careful considerations of merits and problems of intensive and extensive research designs. Extensive research takes into account broad taxonomic groups often representing relations between attributes through formal relations of association rather than specifying causal, structural and substantial connection between them. On the other hand, intensive research technique focuses on groups in which individuals may be similar or different but relate to each other structurally or causally emphasizing the specific mode of connection between each other. This is an exploratory, explanatory and interactive research technique. An intensive research design uses mainly qualitative research methods such as: structural and causal analysis, participant observation, and/or informal and interactive interviews (Sayer, 1992).

Extensive research at the macro level and intensive research at micro level helped me in a comprehensive understanding of the mechanisms at work both at the general and particular situations. Intensive research on one particular case also provides the base and scope for undertaking comparative studies in future researches. However, both are necessary in research designs if used in an integrative manner. This research is largely

qualitative in nature based on field interviews and ethnographies although basic quantitative methods have been employed to represent secondary level macro data. This dual combination approach -- quantitative and qualitative -- is important as mentioned above to address as much as possible any deficiencies present in each of these research techniques. Although a quantitative study provides ways to deduce and draw inferences from a statistical model, it is often based on assumptions and data and thereby lacks the rigor to causally explain phenomena (Sayer, 1992: 120). Yet examination of quantitative data at a general macro level and some level of quantitative analysis before making a rational choice for choosing a qualitative research design (based on field interviews and ethnographic approaches) clears any doubt of randomness or ad-hoc tendencies for choosing a case study or geographical field (Singleton and Straits, 1999). Quantitative analyses of secondary data on the rural nonagricultural sector at multiple geographical scales (Kerala, India, LDCs, etc.) unfold the regularities, trends and patterns of specific data over time and space. This helps to assess a general picture of the rural nonagricultural sector. A combined principle of quantitative and qualitative data analysis makes a research design more robust and sound in character.

Emphasis on qualitative research methods in a research design helps in bringing out the qualitative attributes of social objects and relations on which causal mechanisms depend. Understanding causality is the underlying principle for theoretical conceptualization of any phenomenon, which is the core principle of a research design (Sayer, 1992). Qualitative research also brings out the specific contexts in which

individuals find themselves and how such contexts causally determine complex outcomes across multiple geographic spaces (Silverman, 2000; Huberman and Miles, 2002). In case of the nonagricultural sector, field based semi-formal and informal interviews with specific respondents (non agricultural workers, non agricultural entrepreneurs, govt. officials and agents etc.) was helpful in understanding the complex socio-structural dynamics (relations between individuals and institutions, labor process and organization of production, capital flows and concentrations, development of technology, infrastructure and labor productivity etc.) and developmental outcomes (income, standard of living, health, labor relations etc.) of the rural non agricultural sector.

The conceptual logic of enquiry in this research is based on the process of abstraction. Abstraction from concrete conditions helps in the interpretation of the universal, as Sayer points out: 'To be adequate for a specific purpose it must 'abstract' from particular conditions, excluding those which have no significant effect in order to focus on those which do. Even where we are interested in wholes we must select and abstract their constituents' (Sayer, 1992: 58). Parts constitute the whole, and the movement between the concrete and the abstract is a two- way process in the explanation of the 'diverse determinations' of various concrete objects. Individual abstractions of various concrete conditions and the relationship between these objects/conditions are tied together in the process of conceptualization of the whole (Sayer, 1992). Abstraction informs the fundamental principle of theorization and increases the practical adequacy of

the relationships between concrete objects and conditions (Sayer, 1992: 60).

Based on such a methodological foundation, one principle that I adopted before going into sampling and interviewing procedures is to allow for the research design to develop in the course of the fieldwork rather than specifying the entire research design in advance. Such a strategy allowed ample room for specific structures of production and social relations in the non-agricultural sector to emerge on their own in the course of interactive and conversational interviews and network of contacts that were built up in the field. Although a general theoretical framework (based on a historical materialist framework) guided the forms of enquiry, observations and interviews in the field; at the same time every new detail covered in the course of an interview added new dimensions to the original research design and framework of study.

A non-probability sampling procedure was adopted for conducting field research for this study. Non-probability sampling refers to processes of case selection (here selection of interviewees or villages) other than random selection (Singleton and Straits, 1999:157). The rationale behind choosing this study is based on a number of factors-first, since the fieldwork was largely ethnographic in nature and qualitative in approach, only relevant and specific contextual observations were selected. Since I chose to study the coir industry in Kerala, I had to ensure that I only choose the best representatives of the coir industry in specific locations as coir is produced throughout the length and breadth of Kerala. Second, as the research design was not completely planned out before the start of field work, a non probability sampling procedure helped in the process of gathering initial

information and primary knowledge about the problem of study. Understanding the dynamics of non agricultural rural industrialization through the present stage of the coir industry in Kerala was possible by keeping the sampling procedure flexible as this form of non agricultural activity has undergone tremendous structural evolution over time. Third, due to the absence of elaborate and reliable district/village level survey data on the rural nonagricultural sector or rural nonagricultural workforce/households in Kerala or for the same in the case in the case of the coir industry, there was a requirement for some rational logistical choices for the sample to be selected for this study. A non-probability sample in this regard was the best possible choice in the selection of best representative sample for this study.

The form of non-probability sampling that I chose for this study to conduct both interviews and a basic house-to-house survey was a purposive sampling method. A purposive sampling method is employed to select units that are 'representative' or 'typical' of the population (Singleton and Straits, 1999:158). The selection of such representative units is done through a network of different sources with the prime objective to determine variation between groups or units within the same or different samples. Since the purpose of this fieldwork was to gather information on the nature of the social relations of production and productive forces in the coir industry, this meant that interviews and surveys had to be conducted with different types of respondents, the nature of relationship between them (exporters, big capitalist producers, small-scale producers, independent household producers, coir co-operatives members/ administrators,

trade union representatives, household workers, factory workers, women workers etc.) and the means of production (machinery, tools, raw materials etc.) they possess or work with. In order to identify sources and networks of informants I chose to begin with a combination of snowball sampling and approaching 'gatekeepers' (key informants) of coir communities. Snowball sampling is a way of obtaining information from one person to another through a layer of intermediately developed contacts between them. Gatekeeper approach[5] in doing community based (coir communities, co-operative communities etc.) work at the village level is employed to obtain access to village households through the village headman (*mukhiya*) or representatives of the local government (*panchayat*)/coir cooperative societies etc. and trade union leaders in the case of coir industry (see Valentine, 1997). The advantages of using a snowball sampling procedure in field research are manifold. First, it helps to identify and locate representatives of population samples engaged in different kinds of activities within the same community (individual household units engaged in coir work, coconut plantations; coir weaving or rope making etc; or engaged in small to medium enterprises engaged in making value added products like coir mats, packaging materials etc.) Second, snowball sampling through sources (researchers, research institutions, govt. agencies etc) allows the researcher to build a network of contacts in the field over a period of time. This also

[5] "Gatekeeper is a term used for the person who controls research access in the field. For example, ... the person within a group or community who makes the final decision as to whether to allow the researcher access to undertake the research. Gaining access to undertake social research is often problematic. Friends, contacts and colleagues and others may be willing to vouch for a researcher and the value of the research and act as research sponsors. However, unless permission has been granted by a gatekeeper from within the group, community or organization in which it is planned to undertake the research, it is unlikely that access will be allowed in practice" (Saunders, 2006, The SAGE dictionary of Social Research Method).

helps to build a level of confidentiality, trust and rapport with different communities, respondents and informants. Third, purposive sampling procedure is a flexible and exploratory research technique on the field, which allows the researcher ample scope to make adjustments and changes based on particular conditions arising in particular situations.

Arguments against snowball sampling are based on the fact that this type of sampling lacks the statistical accuracy and precision that underlines a 'probability based sampling design'. However, rather than looking at this research method as 'residual' in nature as some (Singleton and Strait, 1999) would like to define it, careful consideration should be taken to make the selected samples as representative as it can be of the population under study. One way through which I addressed this issue of representativeness was by designing a two-stage research plan in the field. The first stage started with an examination of secondary data sources and the literature to determine the method of selecting geographical areas (villages, towns) and significant population groups (types of owners, workers, etc.) pertaining to the problem under study. Before I embarked on my field research I consulted various databases, literature and archival data at the district, block and village '*panchayats*' (local government administration areas), ward levels etc.[6] to determine specific coir producing areas in Kerala and to identify specific groups by the activity they were involved in. This was to ensure significant

[6] Government database in India generally categorize data into state, district, village (taluks), city (block), ward (city municipality or village panchayat-local government) levels. Sample studies are normally done at state or district levels along with individual sample survey. For eg: National Sample Survey Organization (NSSO).

variations among the samples I selected based on which I could later determine whether a particular sample for interviewing was different and comparable in relation to another sample. Once, I could identify the villages and the respondents as the most representative and significant for the study, I moved onto the second stage of intensive fieldwork interviews. A two-stage method in the field allowed for validation of certain discrepancies associated with purposive sampling techniques.

b) Interviews: I used a combination of semi structured informal interactive interviews on an one to one level as well as focus group interviews during my fieldwork. A less formal interview is crucial on the one hand to build initial trust and confidence with the respondents while on the other hand it allows one to maintain an interactive approach through an open ended conversational mode. This in turn provides ample scope for the respondents to express their thoughts and perspectives on a given question. On the part of the researcher, such open-ended interviews contribute in providing connections between different perspectives and clear any pre conceived notions about the topic at hand or about the respondents (Sayer, 1992). Such conversation oriented interview process is more discussion oriented where both the researcher and respondent participate equally (Kitchin and Tate, 2000, Valentine, 2005). I also conducted a household survey to assess and evaluate the development implications of the rural nonagricultural sector. This survey was done through face-to-face interviewing using an open-ended questionnaire. Survey research is an effective method of data collection for both descriptive and explanatory purposes and can provide precise information about large

heterogeneous population (male/female workers; caste categories; landless households/small proprietors/ multiple source income households etc) (Singleton and Straits, 1999). However, I used the survey research only as a reference to 'validate' the interviews and used the results largely for descriptive and qualitative analysis of interviews. An essential component of field research (surveys or interviews) is the consideration of ethical values of communities, respondents and places before going into the field. An ethical review was conducted for this research prior to fieldwork along with an informed consent for the respondents. A certificate of clearance was issued by York University for conducting this fieldwork.

After the first round of quantitative data based research used both for collecting secondary data and determining the samples, I moved on to the second stage fieldwork. The second stage was specifically designed to conduct field-based research (interviews and observations) in specific villages. Field research at this stage employed a combination of ethnographic and survey methods. Ethnographic methods included field based observations and preliminary interviews and discussions, which helped me to familiarize myself with the field. This led to the formulation of in-depth interviews at a later phase. In-depth interviews were conducted among various categories that included: worker/laborers; unit owners/co-operatives; exporters/distributors; trade union activists, government officials and researchers and academics working on the coir industry. Interviews are vital for intensive research as this allows interviewees to construct their own accounts of their experiences in a more comprehensive manner. Interviews also

reveal facts and information, which at times may have not been included in the research design. Thus, interviews can throw light on whole new perspectives about specific phenomena (Valentine, 1997). Interviews were conducted based on selected queries developed from the larger research questions and varied among focus groups as well as key informants.

An in-depth interview is an open-ended, interactive method that is well suited for describing both program processes and outcomes from the perspective of the target audience or key stakeholders in the field. The goal of the interview is to deeply explore the respondent's point of view, feelings and perspectives. In-depth semi-structured interviews in the field gave me personalized experiences at the individual level. For instance, such interviews were conducted at a one to one basis for laborers and household units engaged in the coir industry as well as large and medium unit owners, exporters and government officials. These were also useful while talking to key informants who provided information on other key interviews prospects.

To obtain collective information from diverse groups like workers (male and female; organized or unorganized), trade union activists etc, focus group interviews were conducted. Focus group interview is a way to obtain data from a group of relatively heterogeneous but carefully selected groups of people who share common perspectives and experiences about a particular issue (Goss, 1996). This is sometimes useful, for example, in eliciting histories of community and collective experiences, or in gaining insight into the shared concerns of a community; hence the use of group interviews in

rapid and participatory rural appraisal (Chambers 1990 as cited by Goss, 1995: 115). '...group discussion itself provides valuable insight into social relations and that the ' stories ' produced in the collaborative performance of a focus group better reflect the social nature of knowledge than a summation of individual narratives extracted in interviews (Goss, 1995: 115). The focus group interviews provided varied perspectives of employers and workers as well as arrive at conclusions, which were commonly agreed upon by the various groups I studies. Also, as workers' struggle is an important component in the coir industry, focus group interview with trade union activities helped me to understand collective responses and agency of workers in the coir industry in the past and at present.

For the purpose of this research, 60 direct and another 40 or more indirect interviews were conducted in the field. Here 'direct' interviews were with those respondents who were directly related or associated to the coir industry (like workers, employers, subcontractors, exporters, trade union leaders etc). 'Indirect' interviews were conducted to gather additional information on the nature of other forms of rural nonagricultural activities and employment in the fieldwork villages other than the coir industry (with broad based social science researchers, government officials, various informants in the field). Among, the direct interviews, 55 in-depth direct interviews were conducted in the field with workers, employers, trade unionists, government officials and researchers. 5 focus group interviews were conducted between three groups of workers, one group of employers and one group of trade union leaders working for an export based

coir factory. 40 households were surveyed-10 each in four villages between diverse groups of people in the coir industry.

Interviews with state officials, trade union activists and exporters etc. were conducted in English. Interviews at the village level were conducted in Malayalam, the native language of Kerala. A native translator/research assistant whom I employed in the course of my fieldwork translated these interviews. I also underwent training in spoken Malayalam, which helped me in basic interactions with respondents in the field and later in the transcription processes of the field interviews.

c) Secondary Data: As the proposed research is a combination of both extensive and intensive fieldwork, I would like to specify how this was implemented in my field based work. I proceeded from an extensive research at a broader level to understand the indicators and processes behind the growth of the non-farm sector as a whole in Kerala at the district and the village level. This helped me estimate the 'explanatory causality' between factors and the variation among selected indicators on the perceived outcomes of the sector at a macro level. I analyzed the secondary data-both at the macro level and the micro level- in the course of the various chapters in the dissertations. The secondary data for this research has been collected from a large number of sources. I collected published reports and databases from World Bank, International Labor Organization (ILO), OECD, International Food Policy Research Institute (IFPRI), United Nations, UNIDO, USAID etc. for data on RNFS in developing countries including India. At all-India level, I

collected data from Indian Government sources like Ministry of Agriculture; Ministry of Planning, Planning Commission; Chambers of Commerce; Central Secretariat; Census of India; National Sample Survey Organization (NSSO); Labor Ministry, Ministry of Micro, Small and Medium Enterprises etc., Indian Statistical Organization, etc. Secondary data for Kerala and coir industry were collected from Department of Economics and Statistics, Kerala; Census of India, Kerala; Directorate of Coir Development; Coir Board; Ministry of Revenue and Coir, Kerala; Department of Industries and Commerce, Kerala; Labor Commissionerate, Kerala etc. which publishes annual reports on small scale and cottage industries of Kerala. Other than government reports, I also collected data from Central Coir Research Institute, Alappuzha; Center for Socio-economic and Environmental Studies (CSES), Kochi; Center for Development Studies (CDS), Thiruvananthapuram etc. to name the prominent data sources. It is to be noted that for sake of comparison, the category of 'state' in India refers to 'provinces' in the case of Canada or 'states' in the US. The category of 'districts' (Alappuzha, Ernakulam, Kollam and Thiruvananthapuram) is the geographical and administrative subdivisions within a state (Kerala), which is used for collection and reference of data for all official purposes. Data collected from Indian sources are presented in the units of lakhs and crores. One lakh is equivalent of 100,000 units and one crore represents 10 million.

There have been some methodological caveats in estimating available data and indicators for the rural nonagricultural sector. First, for instance, secondary data on

productivity or any other indicators like wages, employment or income are not available uniformly for the 'nonagricultural sector' like other main sectors of the economy-agriculture, industry etc. This is because the nonagricultural sector is comprised of heterogeneous activities like manufacturing, service, constructions, utilities etc., unlike the agricultural or industrial sector where aggregate data on trends and patterns can be easily obtainable and interpreted (See David and Bezemer, 2004). Second, in most data on the nonagricultural sector, distinctions are not made whether the data pertains to the 'rural, urban or the aggregate' nonagricultural sector. We are concerned primarily with the 'rural' aspects of the nonagricultural sector and their correspondence with the 'urban' or 'aggregate' level. Therefore proximate data at an aggregate level and proxy indicators are used for the representation of rural nonagricultural sector through 'indirect estimates'. Such tables that do not have direct bearing in the main body of the chapter but is important for overall reference are listed in the appendix. Such a practice is informed by the paucity of data for the nonagricultural sector. Third, data for the nonagricultural sector is not uniformly available for 'comparable' time periods, scales or units of representation. As a result, comparison of data through explanatory statistics is not largely possible due to incomparability in terms of time periods and scale. Efforts have been made to correlate some aspects of the data wherever possible for 'explanatory' interpretation. Data that may be available for the national scale may not be available in the same format for the provincial or local scale. Also, comparable data is not available in the same format for agricultural and nonagricultural sectors. Comparison between the

sectors is done where data permits. Fourth, data has been compiled from different secondary sources like databases and literature for the scales other than the local scale for the nonagricultural sector. The local scale or the fieldwork data is represented by data collected in the course of fieldwork along with fieldwork interviews. Collection of primary statistical data on different indicators through large-scale survey in the field was outside the scope of this dissertation. Fifth, the choice of indicators is determined by the best possible representation of the theoretical ideas of this chapter. Sixth, most data on the nonagricultural sector as a separate category, is available roughly from 1991, but this form of data is disaggregated and comparable data across categories and time periods are not available in publishable format. Seventh, the format of government data in Kerala and its accessibility through statistical sites on the internet have changed with the recent reorganization of the government administration after the last election in the state. For instance, the terms of using databases, which were available and accessible until 2010, have changed after 2011 with the new government coming into power. This has affected the utilization of comparable data for this research. Lastly, since data has been collected from various sources, usage of data has been made keeping in mind issues of reliability and validity of available data and their sources.

d) Positionality: An important aspect of fieldwork is the positionality of the researcher to the respondents that are interviewed. An important caveat of field-based research in social sciences is the nature of power dynamics between the researcher and

the subject (Mohammad, 2001), both in terms of interactions and later in the course of the analysis and processing of information collected in the field. Such power dynamics may often lead to discriminations in interpretation and representation of facts from the field. From the point of view of the researcher, identifying his or her position in the field and relation to the respondents is a way of reflecting how one's social identity influences interactions in the field, how the researcher is perceived by the subjects of research (England, 1994) as well as the validity of the researcher's interpretation of field data. A researcher's social identity and positionality in the field depends on his or her affiliation to particular class, race/caste, nationality, politics, history, experiences and practices which influences the way of looking at things and shapes his or her interpretations about social phenomena (Schoenberger, 1992).

My interest in studying the rural nonagricultural sector in Kerala stem from my own personal experiences, academic interest in economic developmental issues and broad training in social sciences. Born and raised in an urban city in India, growing up, I have witnessed and was aware of the increasing trends of distressed oriented rural to urban migration of the rural workforce in search of economic opportunities. These personal observations and experiences in a way shaped my academic interest in the economic aspects of geography, a subject to which I became devoted to from an early stage of my academic career. As part of my MA thesis, I studied migration patterns of rural to urban workforce and urbanization trends in one of the largest district – Kamrup district – in Assam, a state in Northeast India. Among other things, these migration trends were

largely driven by specific economic circumstances in which rural societies find themselves. I examined how labor migrated from various parts of India, from within Assam (the state I belong to in India) and even internationally, from Bangladesh (Assam is a state in India that share borders with Bangladesh) in search of economic opportunities in Guwahati (a significant urban city in North East India) contributing to the city's rapid urbanization in recent years. Studying rural-urban economic interactions in processes of development and its implications for both rural and urban poverty and wellbeing became a significant research specialization as part of the academic requirements in my post MA (Master of Arts) academic and professional career. My continued interest in rural urban aspects of development also informed my association with various professional research projects. In the course of these various researches on implications of development processes on the socio-economic conditions, health and social wellbeing of the laboring poor, I was always intrigued by the questions related to the circumstantial conditions and the characteristics of the rural economy in various parts of India, which drives migration of the rural poor to the city.

The opportunity to pursue a graduate career at York University opened up the possibility to work with learned and dedicated teachers and mentors, under the careful guidance and tutelage of which I was introduced to rigorous theoretical and practical training in substantive areas of social sciences. The various courses that I took as part of my PhD requirement broadened my understanding of geography, particularly the social and economic aspect of it, and showed me the theoretical connections among place, space

and people and how such relations shape and influence their socio-economic circumstances and outcomes. I have had the privileged opportunity to work with my PhD supervisor, Dr. Raju Das, who introduced me to Marxism and Marxist political economy in geographic thought. Marxism as a way of understanding how historical-material conditions shape social and economic circumstances of human beings and their survival and the way political economy informs larger socio-economic changes over time and space answered the many unanswered questions that I was seeking throughout my life and academic career. Marxism offered the philosophical and social-scientific approach, which I adopted as a way of looking at my own life history and experiences and have become the theoretical foundation of my academic engagements, particularly in conducting the current research.

The interest in researching on the rural nonagricultural sector in Kerala was also influenced by prior research experiences that I had on the state as part of my pre-PhD academic training. Kerala also appealed me due to its long history of communist government and the active participation of the state and the working classes in shaping Kerala's economic and developmental trajectory. My academic interest in researching on Kerala and the coir industry, for which it is known, also deepened and materialized through marital relations with my spouse who is from Alappuzha, Kerala. Kerala, by marriage, became my second home, and I had the opportunity to get introduced to the state, its people and culture, not as an outsider but by being part of them. This was the background, which shaped my positionality in the field and reconnaissance with the field

subjects during the course of this research.

e) Reconnaissance and Observations: Reconnaissance with the field and its subjects is an important part of the interviewing process. I did not share the same economic background as most of my respondents. There were many reasons why my respondents welcomed me, and these include: first, I lived in a village (after my marriage) where coir work was a common household affair in many houses in the neighborhood. Second, interacting with workers was not only for the purpose of the research but rather an everyday fact of life. Third, many employers as well as workers were part of my spouse's larger family relations and friend circles. Fourth, most coir workers were female workers. And last, and most importantly, many workers had the perspective that the purpose of my interaction with them was not only for the sake of a research project, but that I was genuinely interested in their lives and work. My experiences and approach in the field were on many occasions 'participant observation' in nature although this was not a part of my methodological approach. My husband is from Punnapra Village Panchayat in Alappuzha, one significant coir producing area in Alappuzha. After my marriage in 2007 which was the same year I started my PhD at York, I would go back in the summer vacations of 2008 and later for long periods of fieldwork (2009 and 2010) and live among coir workers and in coir villages for long periods of time (8 months in the first fieldwork and 8 months in the second fieldwork). This allowed me to be a part of everyday occupational, social and cultural experiences as

well as life histories of coir workers in this village, helped me to build mutual trust and rapport with workers and employers and opened up contacts and prospects of fieldwork in other coir producing areas in Kerala. Long informal conversations beyond field-work with different people associated with the coir industry; direct observation of the coir production process and the social relations of production in the villages; and my ability to speak and interact in Malayalam built a sense of trust and respect with my respondents. Most respondents freely interacted with me and shared their life's experience. They provided as much information as they knew about the industry, the production process and the existing social relations. My informal involvements with the life, culture and work of coir communities minimized the gap between me being the researcher and the subjects of my research and diminished the binaries between an outsider and the insider over time.

An important approach that I adopted in the process of reconnaissance in the fieldwork was to allow for free consent and respecting the privacy of the respondents in the field. I would always approach a respondent with a briefing about myself and my own research, lay out the purpose of the interview and the intent and use of the data gathered and maintain a transparency about all details or the questions asked in the course of interviews. I offered written consent forms if the participant requested for it. As part of the fieldwork I took along with me a recording instrument, a camera and a field notebook to document the interview and related observations. I sought permission from the respondents before using any of these articles. Respondents in the field did not expect or

accept (in most cases) any remuneration, but I did offer small gifts (something to eat or buy something useful) as a sign of gratitude whenever it was possible. A normal interview with a worker lasted between 45 mins to 1 hour, whereas interviews with government officials, researchers, trade union leaders and employers etc. would between 1 to 4 hours.

I started building my contacts and networks for fieldwork in 2008 from Toronto before going to the field. I sought guidelines and feedbacks from prominent researchers at Center for Development Studies (Thiruvananthapuram); Center for Social and Environmental Studies (CSES, Kochi); and Statistics Department in Kerala University (Thiruvananthapuram). Based on their directions, I planned my first fieldwork trip between May-December, 2009 for 8 months. Arriving on the field, I initially did my fieldwork in Punnapra village in Alappuzha district, where I built the initial contacts for interviewing coir workers and employers in this village. Since, coir is largely centered in Alappuzha district, I started travelling to other coir villages and sub-divisions (as mentioned above) in Alappuzha to meet contacts, informants and respondents (exporters, medium and small scale employers, factory workers, home-based workers, coir-co-operative members, trade union activists, leaders and members etc.). I visited government offices (Coir Board, District Directorates, Department of Economics and Statistics, Department of Census Operations etc.) in Alappuzha town, Kochi City and Thiruvananthapuram City. I also visited government offices in Delhi and Chennai to collect secondary information and data. By the time I was returning to Toronto in

December, I had significant amount of data to start analyses for the dissertation between January and April, 2010. I went for a second round of intense fieldwork between May to December, 2010. During this time, I conducted some more interviews with respondents in the coir industry but also outside industry as well. The purpose of these interviews was to collect data regarding the RNFS in Kerala in general. I also conducted a small-scale informal household survey based on an open questionnaire in coir villages to understand the developmental implications of the industry on workers. I also expanded the number of interviews in the villages in Ernakulam, Kollam and Thiruvananthapuram districts during this time.

There were certain challenges I faced in the field. More often than not, certain respondents were reluctant about me recording interviews or photographing the respondents, production units or production processes. Although these posed certain challenges for documenting evidence, I respected the need for privacy and anonymity throughout the fieldwork and later while writing the chapters. This is one reason I do not have first-hand photographs (except a few) of coir production or workers from the field. Summer and late fall are rainy seasons in Kerala due to the Monsoon rains in India. As a result, travel times to the field were mostly longer (6-7 hours) due to rain induced road or train traffic. This impacted cancellations of appointments many times or delay in the interview process. Respondents also wouldn't show up due to weather conditions. Interviews with female workers were also difficult to organize at times, due to the time constraints that workers faced while managing domestic work and family etc. I also had

to keep in mind the political affiliations of different trade union leaders and workers and representative of local political parties, which at times posed limitations to the nature of questions I could ask in the course of interviews. Interviews with employers were conducted in the production units or the employer's office or even at their house. Interview with workers were conducted in their homes, local tea-shops or at co-operative sheds. Interview with trade union leaders were conducted in their offices or at public halls/places.

f) Data Organization and Analytical Procedures:

Qualitative and quantitative data obtained from the field has been processed and tabulated before being used in the dissertation. Interviews conducted in the field were transcribed into hand typed notes for references and citation in the chapters. Field notes were also carefully interpreted and organized for specific chapters in this dissertation. Field interviews other than providing direct evidence were also largely interpreted, situated and contextualized in the light of the research questions that formed the conceptual framework for each chapter. The secondary data collected during coursework and from published sources are tabulated and organized around the main themes of each chapter. Some of these data are presented as they are, whereas others are analyzed descriptively, analytically or presented through construction of visual analytical techniques (maps, tables, flowcharts and statistical diagrams).

Each chapter in this dissertation is organized around one central thesis (research

question), which is analyzed through a set of sub-thesis or questions. The central theses of each chapter is linked with the rest of the chapters in a way where individual related parts congregate together to inform the whole -- the main theoretical framework of this dissertation. A thorough detailed analysis and discussion of the data collected for this research is presented in the following chapters. The results of this research will contribute towards an understanding of the casual dynamics and mechanisms associated with capitalist development of the rural nonfarm sector and how they have specific outcomes for rural workers in particular and rural development in general. The critical analyses presented in these chapters will contribute to the literature of three substantive areas the nonfarm sector, political economy of development and economic geography.

1.7. Organization of Chapters:

This dissertation is divided into nine chapters following the introduction.

The second chapter reviews the existing literature on the RNFS. My aim here is to provide a background for the current research. The existing literature on the RNFS has been organized around three vantage points: first, I examine how the RNFS is defined as a complex category. Second, I look into the determinants that lead to the emergence of the RNFS and their geographical variation. Third, I also review some of the developmental implications of the RNFS as pointed out in the existing literature. Following this, I examine some of the existing research on the RNFS in Kerala specifically in the context of the coir industry.

The third chapter provides a critique of the existing literature for its lack of focus in substantive areas. The existing literature overlooks the class character of the RNFS and how existing class relations and class struggle influence the development of productive forces in the RNFS. The role of the state in mediating the development of the RNFS and how state policies have implications for uneven development implications in the RNFS is another areas which has not be adequately addressed in the existing literature. The treatment of the RNFS in the existing literature is also to a great extent a-historical and a-spatial in nature. Based on these gaps I seek to develop a preliminary historical-material framework for conceptually understanding the RNFS in terms of its necessary conditions and outcomes. Drawing on insights from Marx and various Marxist/Marxisant and progressive literature, I focus on four substantive areas for conceptualizing the RNFS: social relations of production, productive forces, role of the state, and development implications for class and non- class relations. The aim of this framework is to understand how relations of exchange and class develop within the RNFS, and how, in particular, capitalist relations develop in it, and how this process is mediated by the state, which produces uneven development outcomes, both socially and spatially. While much of political economy of rural and national development has been about the political economy of agriculture, I have sought to develop a framework for understanding the political economy of non-agricultural activity in rural areas.

The fourth chapter provides a macro level picture of the dynamics and developmental outcomes of the RNFS at three different scales-developing countries,

India and Kerala. The purpose of this chapter is to provide an overview of the various aspects of the RNFS and their geographical variations through an examination of secondary data from various sources. I examine the RNFS through indicators like share of the RNFS in national/state incomes; state expenditure; export statistics etc. Next, I move on to show the impact of the non-farm activity on employment and income at the three different scales. The third aspect is to examine the impact of employment and wages on household income, nature of rural labor relations and social relations like gender and caste, in the RNFS.

The next two chapters examine the coir industry as an example of a RNFS activity in Kerala, India, in terms of production relations (chapter 5) and productive forces (chapter 6). My aim in chapter 5 is to bring into focus the nature of objective class relations inherent in production of coir as they evolve historically and geographically and the ways in which class relations interact with non-class entities of gender and caste. The chapter starts with a historical overview of the social and spatial relations of the coir industry beginning in the colonial era until the post-colonial era. Second, I provide a map of the existing classes and class relations in the coir industry through an examination of the process of class differentiation, capitalist competition, and internal class fractions. I also examine the various methods of exploitation and labor control implemented by the capitalist/propertied classes on the laboring class in the process of surplus extraction. Third, I look at how class relations condition social identities of gender and caste into relations of exploitation, labor control and intra-class competition within the working

class. Fourth, I study how social relations of production are spatially organized in the coir industry.

The sixth chapter focuses on the development of productive forces in the coir industry and some of the contradictions they face in the process. I start with an examination of the simple labor process in the industry understood as a study of the types and nature of productive forces -- raw materials, instruments of labor (machinery, tools, etc.) and labor power in the coir industry. Second, I try to show how the productive forces are spatially distributed. Third, the most important emphasis of this chapter is to examine the contextual factors specific to the coir industry that contribute to the contradictions in the development of the productive forces under the impact of capitalist social relations.

Forces and relations of production, their interaction and effects, in other words, 'economic' processes cannot be fruitfully discussed in abstraction from the state. So, the role of state policies in the promotion of capitalist development of the RNFS in India and Kerala and the coir industry in particular is the main emphasis of the seventh chapter. Taking a historical approach, I examine state policies towards the RNFS in three time periods: colonial, postcolonial state-led and postcolonial neoliberal period. I show that although state policies have the potential and intent of promoting capitalism, these actions reflect at least three characteristics: state policies are socially uneven (between classes; between types of rural nonfarm activities; and between sectors at the point of production) and have geographically uneven effects. Also, this unevenness is to a large

extent the result of the biases of state policies in the interests of the capitalist/propertied classes in the RNFS.

Chapter eight examines the developmental implications of the RNFS on the rural working class in the context of the coir industry. The chapter begins with an examination of the employment and wage patterns in the coir industry. Next, I examine the implications of wages and employment in the coir industry on the social development of the rural working classes. I do this based on an understanding of household income, rural labor relations, gender and caste relations as well as the physical wellbeing of the laboring class. Drawing from Marx's general law of capitalist accumulation, I also briefly examine how the development implications – mainly in terms of employment and wages of the working class -- in the coir industry are the outcomes of the contradictions inherent in the capitalist system of production. These contradictions also have impact on the nature of class struggle in the coir industry in recent times.

The final chapter concludes the dissertation and the current research. The chapter begins by re-visiting the main research themes and questions that the dissertation sought to research on. This follows with a summary of the main research findings of each chapter and some of the limitations of the current research. I also show how this research contributes to the academic body of literature on the RNFS; Marxist political economy of development; and Economic Geography. The chapter ends with a conclusion stating the recommendations for future research on the development of the rural nonagricultural sector in the less developed countries.

Chapter II: Literature Review on the Rural Nonagricultural Sector

2.1. Introduction:

The emergence of a rural non-agricultural/non-farm sector (RNFS) in developing countries is a relatively recent phenomenon, assuming significance in development policies only since the 1980s. With the liberalization of the national economies of developing countries since the 1990s and the inability of the agricultural and industrial sectors to provide productive employment to an ever-growing base of surplus labor reserves, the RNFS is considered to have a tremendous potential to generate (rural) employment and reduce poverty. The RNFS has always co-existed with a rural agricultural sector or an urban industrial sector, although it has not been recognized as such.

The questions therefore which concerns us are: how do we understand the RNFS, what factors drive it, what are its historical roots and what are its specific outcomes in terms of economic changes outside agriculture but within rural spaces. The objective of this chapter is to review the literature on the development of the RNFS. The breadth of this recent body of literature is very wide in scope and spans across interdisciplinary boundaries as well as multiple theoretical perspectives ranging from neoclassical institutional economics to more critical approaches to development (of rural areas). The chapter is divided into four sections following the introduction. The first section will look at the different ways in which the RNFS and RNFE is looked at in terms of their conceptual definitions. The second section reviews the existing literature regarding the

origin and determinants of the RNFS focusing on its growth linkages to other sectors of the economy, the role of the state in its development and the impact of neoliberal globalization on the growth and development of the RNFS. The third section examines the literature on the development outcomes of the rural nonagricultural sector in recent times. The fourth section examines the literature on the RNFS in Kerala, more importantly from the point of view of rural industrialization in the context of the coir industry. The chapter ends with a conclusion.

2.2. RNFS as a Complex Category:

Whereas all income-generating activities that fall outside the boundary of agriculture or agricultural employment are essentially nonagricultural in nature irrespective of their location, rural nonagricultural/nonfarm employment (RNFE) or the RNFS includes those activities, which largely engage only the rural population (Lanjouw and Lanjow, 1995). As Kumar points out RNFE is rural only from the point of the residence of the working population engaged in it and not essentially the location or place of work (2008:3).

The RNFS is a complex category. The definitional problems surrounding RNFS concern: the nature of economic activity people engage in; the social relations associated with these activities (e.g. wage-employment or not); location of living and working; and the 'unit' of analysis (people/household vs their activities).

First of all, RNFS includes a *variety* of economic activities. As Kumar says: The

term 'non-farm'...includes manufacturing activities, mining and quarrying, transport, trade and services in rural areas or we can say that 'non-farm' refers to those activities that are not primary agriculture or forestry or fisheries.' (Kumar, 2008:3 derived from Lanjouw and Lanjouw, 1995).

In terms of the social relations aspect, non-farm activities can be defined as follows:

> 'Non-farm income refers to non-agricultural income sources. Several secondary categories of non-farm income are commonly identified. These are (i) non-farm rural wage employment, (ii) non-farm rural self- employment, (iii) property income (rents, etc.), (iv) urban-to-rural remittances arising from within national boundaries, and (v) international remittances arising from cross-border and overseas migration.' (Ellis : 1998:5).

And with respect to wage employment, it can be part-time as well as seasonal particularly depending on availability of agricultural raw materials, household labor dynamics and financial flows between different sectors of the economy at given point of time (Haggblade et al, 2009:2).

There is then the issue of economic scale. Rural nonagricultural activities may be very small and micro-scaled in nature comprising household or cottage based activities. It can also be large scale in nature when employment is in agro-processing industries or in rural/peri-urban warehouses of large-scale industries.

In terms of the location aspect, it is generally accepted that RNFS is located in rural areas. In other words, RNFS refers to activities occurring outside of urban areas, i.e. inside rural areas. But the matter is not as simple as it sounds. RNFS includes two 'units' of analysis: people/household and activities. A household can be "rural" (located in the countryside) but its activities may be a mix of urban and rural (Barret at el, 2001: 319-320). With increasing integration of rural and urban production economies in the current

age of globalization, a household may engage in production of a commodity (informally) for an urban employer. However, a subcontractor who acts as an intermediary between both parties may mediate the link between the rural household and the urban employer. In this case, the rural household may or may not have the knowledge of the source of employment or sale of their products. A more specifically 'rural' definition of the RNFS looks at the different forms of sources of income and employment in rural areas -- off-farm and nonfarm[7] -- thereby clearly distinguishing between the agricultural and the nonagricultural sector (Saith, 1992:13). From the perspective of my research, the industrialization aspect of the RNFS is emphasized. However, as Saith points out, the rural industrial sector constitutes only one part of the RNFS, the latter incorporating various other activities that are not necessarily industrial in nature (Saith 1992:13).

[7] Gordon and Craig explain the confusion between the two categories as such: 'The term 'non-farm' should not be confused with 'off-farm'. The latter generally refers to activities undertaken away from the household's own farm, and some authors (e.g. Ellis, 1998) use it to refer exclusively to agricultural laboring on someone else's land, so 'off-farm' used in this sense would not fall within the normal definition of 'non-farm'. (2001:4). Similarly Saith points out thus: "...the off-farm category could include straightforward agricultural activities, such as income earned by peasants and workers as hired labor on farms owned by others. On the other hand, on-farm work generally includes a non-agricultural component... "Farm" needs to be understood as unambiguously as referring to a set of economic activities, rather than to the location where any particular activity is executed. A distinction between "farm" and "agriculture" would also be appropriate, where the latter refers exclusively to crop cultivation, while the former also includes the auxiliary agricultural activities...The correct category is then is all "nonagricultural" activities, irrespective of whether they are conducted on one's own farm or elsewhere (Saith, 1992:13).

2.3. Emergence of RNFS: Factors Underlying It

The existing literature focuses on the various causal determinants of the RNFS. These include the different growth linkages that the RNFS has with the agricultural or the urban industrial sector, which leads to its emergence. Also, the role of the state in providing the conditions necessary for the development of the RNFS is another important focus. The impact (positive or adverse) of neoliberal globalization on the RNFS is an important factor behind its growth and development in recent times. The various factors are discussed below:

2.3.1. Growth Linkages of the RNFS: The development of the RNFS is understood as determined by the different types of production, consumption and trade linkages that exist between the RNFS and the rural or urban economy. There have been debates on whether there exists a strong linkage between RNFS and agriculture (Mellor, 1976; Anderson and Lierson, 1980; Hazell and Haggblade, 1989; Haggblade 1989; Dunham, 1991; Bhalla, 1993; Lanjouw and Lanjouw, 2001; Nayyar and Sharma, 2005, Reardon, 2008).

a) Forward Linkages: One may start with what is known as forward linkage, which happens when surplus income from agriculture is invested in small-scale manufacturing/rural industries that process agricultural products or by-products to cater to a nearby urban market (Reardon et al, 2008; Islam, 1997; Start, 2001). In an early formulation of this hypothesis, Mellor (1976) has demonstrated that commercialization of

agriculture and agrarian economic development stimulates new economic activities in RNFS:

> 'A "rural-led" strategy of development is likely to produce high average rates of return to investment in agriculture; rapid growth of small scale industry receiving direct capital from cultivators; price relationships for industrial consumer goods which facilitate high profits and reinvestment; and an income base in agriculture sufficient to support taxes to self finance much of the infrastructural requirements. The resulting substantial net outflow of resources from agriculture will spur growth in other sector of the rural economy, while agriculture itself is expanding rapidly and profitably.' (Mellor, 1976, cited in Chandrasekhar, 1993: 207)

The Mellor hypothesis can be seen in terms of pull factors (vs push factors). 'Pull' factors are demand induced and a characteristic of dynamic agricultural regions. Pull factors are mostly associated with relatively better income (high return) and employment opportunities that exist outside of the agricultural sector but within rural spaces (Reardon et al, 1998). Pull or demand induced factors often lead to rural farm households with surplus income to diversify in high return (income) entrepreneurial activities, which yields additional surplus (Hart, 1998; Davies, 1996).

b) Backward Linkages: Backward linkages between farm and nonfarm sector are characterized by the latter producing inputs (in terms of instruments of labor, labor force or capital) for the farm sector (Haggbalde and Hazell, 1989). However, the magnitude and scale of backward linkages depend on the extent to which capitalist development in agriculture has taken place resulting in the demand for agricultural inputs resulting in the development of the RNFS to meet these demands to some extent (Ranjan, 2006:9). There are also consumption linkages, which arise out of increased incomes of farmers and laborers, generating increase in demand for goods and services. These linkages are

largely concentrated in rural areas since the goods and services demanded are typically produced by small scale, labor-intensive enterprises (Start, 2001; Ranjan, 2006). Besides, as geographers, Norcliffe and Freeman (1980) argue, rural areas have comparative advantage in the production of certain commodities, which are then traded to other regions or among countries (see also Vaidyanathan, 1986; Harris, 1987). Rural traditional industries also utilize local resources such as raw materials, local technology etc. from the agricultural sector. Local resources are superior in quality yet relatively cheaper and more often than not a traditional industry has sole monopoly over its use. This can make a traditional industry competitive in the long run given that its comparative advantage over particular resource (raw material or skill levels of worker) is highly efficient (Eapen, 2005; Nayyar and Sharma, 2005).

Among the developing countries in Asia, the linkages between agricultural growth and the nonfarm sector discussed above have been fairly strong in China during the post reform period of 1980s. Researchers have argued that this trend was basically achieved through an increase in the crop yields per hectare thus releasing a substantial proportion of the labor force from agriculture to non-farm activities (Rao, 2005; Kabra, 2005). A capital intensive agricultural sector teamed with emphasis of governmental policies to improvise on the rural industries for global exports have fuelled the growth of a vibrant non farm sector with significantly high employment rates (Mukherjee and Zhang, 2005). A number of studies in India confirm to the fact that the development of the RNFS has been agriculture led (Hazell and Haggblade, 1991; Bhalla, 1993; Dev,

1990; Papola, 1992; Shukla, 1991,1992; Unni, 1991, 1994). However, various studies argue that although agricultural linkages are important for the growth of the RNFS, the strength of such linkages are markedly different across regions and states. While agriculturally rich states like Punjab, Haryana, Gujarat have been able to promote the growth of a healthy rural nonagricultural sector (25 percent of the workforce), the relatively less advanced agricultural sector in states like Bihar and Uttar Pradesh yields mixed results in the growth of the RNFS (Fisher at el, 1997; Chadha, 1997). While some suggests that even in agriculturally rich states like Andhra Pradesh, the development of the RNFS has been slow and can be primarily attributed to the fact that households with larger land holdings diversify less in nonfarm activities (Chadha, 1997). Nevertheless, growing agricultural productivity (Dev, 1990); change in crop pattern (Vaidyanathan, 1986; Papola, 1992); and consumption and production linkages (Hazzel and Haggblade, 1991; Shukla, 1992; Nachane et al, 1989) are the main growth linkages that has driven the agriculture led development of the RNFS in India.

The growth of the RNFS has also been agriculture-led in the case of many African countries since the late 1970s. In the case of Uganda and Ghana, Wandschneider (2003) and Canagarajah et al (2001) respectively found that agriculture is the critical component in the growth of the RNFS and RNFE, whereas the role of urbanization and urban linkages are relatively weaker due to prevalence of small towns instead of larger ones (2003:20-21).

c) Counter-arguments to Forward Linkages: There are interesting counter-arguments to the thesis of agriculture led linkages leading to the RNFS. One counter argument is based in the 'Kuznets Hypothesis'. According to this hypothesis, the development of the movement of labor and capital from one sector to another sector[8], whether in rural or urban areas, depends on the increase in the growth of the national economy and rise in the per capita incomes. This raises demand for manufactured or consumption oriented goods and services compared to agricultural products. In the rural economy, this will impact agriculture's share in real income and also a movement of labor from farm to nonfarm occupation unless productivity levels decrease per unit of labor (Kuznets, 1959: 58-59 as cited in Ranjan, 2008:6). A corollary of this hypothesis has been forwarded by Chandrasekhar (1993):

> 'An inevitable corollary of such activity (modern economic growth) [is [the] ...growth of urban centers, so that any discussion of it cannot be restricted to the rural segment of a nation or a region. That is, occupational diversification in a process of modern economic growth, even if stimulated by increases in agricultural productivity, occurs *pari passu* with the growth and concentration of population and non-agricultural employment in centers of production that are urban, or are becoming so.' (Chadrasekhar, 1993:208)

This then indicates that the development of rural nonagricultural activities doesn't have to be necessarily led by agricultural activities and that economic diversification in rural areas can also originate due to urban-based development based on demand for rural capital and labor from urban industries and services (Chandrasekhar, 1993:208-09). Proponents of the alternate view also suggest that traditionally, agriculture has never been a strong stimulant compared to urban industries for rural diversification or growth of new

[8] Here sectors are understood in the broad categories of primary (agriculture), secondary (manufacturing) and tertiary (services).

rural economic activities through linkage effects. This is primarily due to the slow transfer of labor force from farm to non-farm sector as well as the general sluggish growth of agriculture in developing economies (Hirschman, 1958). Clark (1991) and Start (2001) also find that movement of labor takes place initially from primary to the secondary sector and from the secondary to the tertiary sector indicating that domestic demand patterns in general leads to weakening of agricultural linkages in the long run (1951: 51 as cited in Ranjan, 2008: 6, Start, 2001). Demand for rural non-farm activities has been pointed out to be based on not only rural demand (as in the Mellor thesis) but also due to demands from urban areas in recent times (Islam, 1998). Start points out that as rural incomes grow (either due to commercial agriculture or due to urban based employment and income), rural preferences shift to urban products leading to gradual demise of the rural led linkages of the RNFS (Start, 2000: 494-95).[9]

Based on this background, many have disapproved of the linkage theory between the rural farm and the nonfarm sector in India and have rather emphasized prime movers of the RNFS outside agriculture. Bhalla confirms this view as such:

> 'In recent years, agricultural performance has had very little to do with rural work force diversification or concentration. The prime movers on the contrary have been improvements in rural infrastructure and in asset holdings by cultivating and non-cultivating households, and the rapid increase in income generated in the secondary sector.' (Bhalla, 2005:79).

Also, it has been argued that goods produced in the rural manufacturing sector[10] are inferior in nature and will soon be outcompeted by the rise in rural incomes and the

[9] The revival of the RNFS under this circumstances then occurs through a globalized urban economy where urban processes start mobbing into rural areas and stimulated employment and income once again (Start, 2001: 496).

[10] Manufacturing is the most important form of rural occupational diversification.

concurrent demands for superior goods produced in the advanced urban industrial sector (Reznik and Hymer,1969). 'Rural industrial activities shed their rural linkages and locations as they modernize or are competed away' (Saith 2006:86). Harris confirmed a corollary of this view in the case of Malaysia that declining demand for rural products due to influx of urban produced goods with rise in rural income makes rural industries profitable only when investments integrate both rural and urban processes (1987:8). Ho in his study of rural industries in South Korea and Taiwan explains that with urbanization processes, not only do agricultural linkages become weak, but also rural industries (mostly the medium and large scale) move closer to urban proximity with strong linkages from the urban economy (1982:982).

Different studies found that growing inequality of income in rural villages and concentration of incomes in the hands of a small section of the propertied class; decline of male workers in the RNFS and agriculture still being an important source of income for rural households are reasons enough to weaken the linkages between the rural farm and nonfarm sector (Harris, 1987; Harris, 1991; Chandrasekhar, 1993; Singh, 1994). As a counter to previous arguments that the non-farm sector grows due to increase in farm incomes of large farmers, it has been argued that these farmers were not the prominent source of demand for non-farm goods and services except in regions where they were very dominant (Unni, 1991; Eapen, 2005). And even if there was any demand, it varied considerably with high concentration in some areas and scanty in others (Harris, 1987; Bhalla, 2005). On the contrary, other linkage effects like rural infrastructural and social

development (Hazzel and Haggblade, 1991; Jayaraj, 1994; Unni, 1998); role of urbanization; proximity to urban places and rural-urban continuum led rural migration in the growth of the RNFS and RNFE (Bhalla, 1993, 1997; Papola, 1992; Thomas, 1995; Basu and Kashyap, 1992); market linkages (Visaria, 1995); or even a combination of local or extra-local factors in the case of the southern Indian states of Kerala and Tamil Nadu (Eapen, 1994; Basant, 1993; Samal, 1997b) have contributed to the growth of the RNFS in India. There also seems to be a general consensus in the existing literature that neoliberal structural adjustment induced urban production processes in many developing countries in the post 1980s has opened up possibilities for the rural economy to integrate existing nonagricultural activities primarily manufacturing with global production processes (Bhalla, 1995).

In several case studies, it was noticed that more recently the integration of rural and urban markets as well as rural and urban manufacturing and industrial processes has led to a rapid rise in the rural labor force getting employment (rise in economically active persons in non agricultural activities) in the non agricultural sector in Latin American countries like Brazil, Peurto Rico, Mexico and Peru (Janvry et al, 1984). Urban consumer demand and industrial integration in the case of Brazil (Silva and Grossi, 2001: 447-448); proximity of rural areas to urban concentration as in Honduras (Isgut, 2004); and the emerging trends in the development of urban based demand for rural service sector in Nicaragua[11] (Corral and Reardon, 2001:432), are some recent trends of growing urban

[11] Although not extensively.

linkages of the RNFS and RNFE in rural areas in recent times.

Another counter argument to the Mellor hypothesis (pull factor idea) is that agricultural stagnation creates 'push factors' which drives both incomes and labor out of the agriculture to the rural nonfarm activities. 'Push' factors are distress driven and outcomes of stagnant agricultural conditions (Wiggins and Hazell, 2011). In more recent years, the shift of the rural labor force to the non-farm sector has been occurring, some argue, due to the stagnation, and not growth, in the agricultural sector. Haggblade et al (2007) and others (Chandrasekhar, 1993) have pointed out that agricultural stagnation will have adverse impact on the RNFS:

> 'Trade and commerce remain marginal given the subsistence orientation of agriculture, the prevailing low-input farm technologies, and the limited transport and communications infrastructure in rural areas. In zones of rapidly growing agricultural productivity, the composition and patterns of growth observed in the rural non-farm employment differ markedly from those in stagnant rural settings.' (Haggbalde, Hazell and Reardon, IFPRI, 2010:1433).

As Haggblade et al (2007) further points out:

> 'In regions without a dynamic economic base, patterns of growth in the rural non-farm economy unfold very differently. Sluggish income growth in agriculture leads to anemic consumer demand, limited agro processing and agricultural input requirements and stagnant wages. Taken together, these tendencies stymie both entrepreneurial and wage-earning opportunities in the rural non-farm economy.' (IFPRI, 2007)

It has been argued that 'push' factors operate under distress circumstances in regions where agriculture has not yet been commercialized or due to capitalist expansion in the agricultural sector or more recently due to liberalization induced inequalities in agriculture. Studies have pointed out that such distressed induced movement of labor from agriculture to the RNFS is taking place among the poorest of the rural population (Singh et al, 1986; Shariff, 1991, Abraham, 2009). Distress-induced RNFS occurs when

productive employment of labor in the agrarian sector is on a decline (Chadha, 2005). Due to mechanization in agriculture in the post green revolution era, surplus labor has been displaced from the agrarian sector. Or alternatively with the agricultural sector facing unequal terms of trade after liberalization in the 1970s, small peasants and landless labor are getting increasingly proleterianized (Vaidyanathan, 1986). Hart (1998) also suggests that persistence of part time subsistence farming releases labor at lower costs for other sectors (RNFS) in the rural areas (cited in Start, 2001: 494). The more recent approach to RNFE -- "livelihood approaches" takes into account cultural factors (like education levels), in given society (which makes farming less attractive) that acts as push factors in the decision making process of rural population to diversify from farm to the nonfarm sector (Preston in the case of Indonesia, 1989; Kelly in Philippines, 1999; Rigg and Nattapoolwat in Thailand, 2001 as cited in Bouaham, et al, 2004).

Barret et al (2001) observe that diversification into nonfarm activities in rural Africa is caused by push factors in agriculture often related to market or credit failures. Ellis (1998) on a slightly different note points out that although rural income or employment diversification in Sub-Saharan African countries are largely determined by agricultural factors, extra-local factors like remittances earned outside rural areas is an important livelihood strategy and serve as a form of nonagricultural income to rural households. However, such trends situate the conception of a nonfarm sector outside the geographical boundaries of the rural. Reardon et al (1998) on the other hand point out that urban industrial linkages are more prominent for rural non farm activities closer to

urban areas which is proportionately quite less than the predominant agricultural linkages in Africa. Thus, most studies agree to a strong rural (agricultural) led trajectory of the RNFS in African countries.

There has been a general consensus among scholars that the growth of the RNFS in India is dominantly influenced by distress-induced push factors due to agricultural stagnation in rural areas in recent times (Vaidyanathan, 1986; Basu and Kashyap; 1992; Bhalla, 1993;Simmons and Supri, 1994; Eapen, 1994). The issue of landlessness in many regions has been seen as a major cause of distress driven employment in the nonfarm sector (Unni, 1991). In attempting to explain distress-driven factors of non-farm employment, Vaidyanathan (1986) advances what he calls the 'residual sector hypothesis'. This is based on the assumption that the non-farm sector acts as an alternative to employ the spilled-over surplus workforce that cannot be absorbed in agriculture. More often than not, in areas where agricultural distress is clearly visible and agricultural labor is casual in nature, non-farm activities such as small-scale household cottage industries act as a cushion for temporary economic relief (Vaidyantahan, 1986; Abraham, 2009). Also, such temporary solutions serve as a subsidiary source of household income in slack seasons of agriculture by generating seasonal employment (Basu and Kashyap, 1992). Vaidyanathan also stresses that the residual nature of the RNFS promotes informal employment -- 'Rural workers who cannot get adequate work in agriculture spill over into rural nonagricultural activities so that the latter acts -- on the analogy of the 'informal sector' in urban areas -- as a sponge for the excess labor'

(Vaidyanathan, 1986: A141-142). The residual aspect of the rural nonagricultural sector is therefore seen as a 'bargain basement' for the rural poor (Saith, 1992; Chandrasekhar, 1993). The residual hypothesis argues that workers generally join less productive, low paying non-farm jobs as either self-employed or hired casual workers in moments of distress for immediate survival. The inconsistency of the existing literature is visible in such apparent paradox. Rural nonagricultural employment has also been looked at as rural 'livelihood' strategies based on the concept of which economic employment or income diversification strategies are understood in recent times. According to 'livelihood approaches', distress driven employment diversification in rural areas is seen as immiserising strategies, livelihood coping or survival tactics of rural communities (Davies, 1996; Bryceson 1996; Ellis, 1998; Scoones, 1998; Francies, 2000).

Rigg (2006) also points out that movement of labor from farm to nonfarm work in his village studies in Laos has been the result of distress conditions in agriculture where unequal distribution of land, failed rice harvests, distress agricultural sale and inability to adapt to market induced changes have forced villagers to engaged in non farm work in the villages and well as in urban areas (2006: 85-86). Bouahom et al also point out that 'distress diversification' in many villages have led to employment in low return jobs in Laos (2004:614). Distress induced rural non-farm employment also dominates the rural employment scenario in Russia as surplus labour in agriculture has been the cause behind an unproductive agricultural sector (Lerman, 2008) as well as in the case of low capital intensive agricultural areas of South Asian countries like Bangladesh (Mahmud, 1996).

Driven (2011) in a very recent estimate of the development of RNFS at an aggregate level for Latin American Countries, found that the employment diversification is largely distress-induced where the RNFS acts chiefly as a residual sector. Although income diversification in the RNFS is taking place due to commercialization in agriculture, it is also taking place due to increasing capital investments from urban areas and the integration of rural industries to urban processes taking advantages of urban markets, technology and growing export demand for rural industrial production (Driven 2011). Agriculture is an important linkage for rural communities in many various Latin American countries. As Cook (in the case of Mexico, 1984), Berdegue et al (in the case of Chile, 2001) and Deininger and Olinto (in the case of Colombia, 2001) observe, employment diversification is distress oriented, whereas surplus income diversification is a strategy to maximize and supplement farm incomes of richer households; the RNFS is a residual sector; and landholding sizes are proportionate to the increase or decrease of economic diversification[12] (Cook, 1984:20; Bergedue et al, 2001:416; Deininger and Olinto, 2001: 457). Also in the case of Peru, although RNFE is distressed induced where farm households have been undertaking incomes diversification to adjust to the shocks of liberalization, it was seen that richer households tend to rely more on RNFE incomes whereas the poor often saw it as a residual sector to stay afloat under conditions of distress (Escobal, 2001:506).

The factors leading to the growth and development of the RNFS in the developing

[12] However, any form of diversification is also directly related to the size of arable land making it clear that rural nonagricultural diversification is largely dominated by the relatively well off agricultural households.

countries of Asia, African and Latin America suggest agricultural linkages to be predominant in most countries; increasing trends of urban or extra-local linkages acting as pull factors in recent years; and largely distress induced push circumstances both for employment and income diversification in the RNFS.

2.3.2 The Role of the State: The literature has shed light on the role of the state (on its own or through public-private partnerships) in providing credit, transportation, trade, infrastructural and service, labor and human and social capital linkages that are produced in the rural and semi-urban spaces that help in the growth of the RNFS. Rural infrastructure in the form of transportation, power and water supply and other forms of built environments (factory houses, equipments) etc. has been argued to promote the RNFS by reducing transaction costs, building markets, increasing productivity (Reardon, 1998; Davies, 2003). Development of economic infrastructure has also been considered important to transform the comparative advantages of a rural area (in terms of natural resource, climate, raw material) to competitive advantage particularly in an export oriented production economy (Wandschneider, 2003:18). In the case of Thailand, it has been observed that well developed rural infrastructure has aided the spread of yield increasing technology raising farm incomes and releasing labor for non-farm activities (Rao, 2005). Development of small towns, satellite townships and peri-urban regions has been considered important for providing infrastructural and service, boost the growth of small-scale rural industries which caters to both rural and urban markets (Bhalla, 1997;

Kundu, 1991; Visaria and Basant, 1994; Coppard, 2001). On the other hand, creation of financial linkages in rural areas through mobilization of household incomes and role of institutional (both public and private) financial institutes are important determinants for the growth of the RNFS (Start, 2001; Davies, 2003). Creation of a business environment that is market friendly and facilitates private capital investments is also important from the vantage point of developing market, trade and social capital linkages for the RNFE. Such linkages developed either in the agricultural or the urban industrial sector will promote the nonfarm sector in rural areas (Timmer, 1995 cited in Start, 2001:494). Development of human capital in the RNFS through improvement in education, training, skill formation and social welfare protection has been cited as important factors contributing to the improvement in productivity, marketability and sustainability of rural nonfarm activities (Ranjan, 2006: 15-16). Skills acquired in the RNFS have been also argued to boost productivity in agricultural sectors (Start, 2001: 494). Numerous studies in India have indicated a positive correlation between literacy levels and nonfarm employment (Chadha, 1993; Fisher et al, 1997, Basant, 1993 in Gujarat; Jayaraj, 1994 in Tamil Nadu; and Eapen, 1995 in Kerala). Harris (1987), Hart (1998) and Kapadia (1999) also emphasize the importance of family, caste/kin and community networks in building social, human and labor linkages for the development of the RNFS.

The role of the state governments has been considered essentially instrumental in formulating policies for developing these factors:

> 'The presence of the state in a given area can be a significant driver of local income growth. Its relative importance for the development of non-farm economic activity is likely to be greater in poor

> regions, which typically lack other significant sources of demand. For example, public investment in schools, training centers, health clinics, roads, irrigation systems, and other social and economic infrastructure can provide a major boost to local construction and related activities. Moreover, the development of public administration and services generates salary employment and income, often in areas where such opportunities are lacking, which will partly be spent locally. Some public services, for example in education, may also give rise to linkages with upstream non-farm activities.' (Wandschneider, 2003:19)

In other words, the state can counter the impact of agrarian stagnation on the RNFS by creating conditions for RNFS independently of agricultural growth. Studies have also focused on how asset generation is important for rural entrepreneurship and how state policies can play an active role in this regard through various rural development policies (Ranjan, 2006; Coppard, 2001). Others emphasize how state aided rural development projects like cluster formations for technological and market support for small-scale traditional enterprises (Harris-White, 1999; Schmitz and Nadvi, 1999 as cited in Start, 2001:500); entrepreneurial programs like self help group approach for through micro-finance for women (Fisher et al 1997; Coppard, 2001:52); private public partnerships for credit and infrastructural support to rural industries (Haggblade et al, 2002; Wiggins and Hazell, 2011:16); and establishment of local institutes for rural participatory action oriented governance (Wandschneider & Davis, 2002 as cited in Davies, 2003:20; Coppard, 2001:45-46 based on various case studies in India) play a big role in the development of the RNFS and employment.

Advocates of liberalization induced market led development approach to the RNFS points out that despite the efforts of the state in facilitating capitalist development in the RNFS, its policy intervention should be less regulatory and minimally protective of the RNFS to allow market based competition for rural industries (Fisher et al, 1997:

Coppard, 2001). The neoliberal state's role has also been argued to be significant in integrating RNFS with the urban industrial sector not only in terms of competition but rather to ensure complementary linkage with each other (Start, 2001:499).

2.3.3. Neoliberal Globalization and the RNFS: There has been much controversy about the ways in which economic liberalization or neoliberal globalization processes since 1990s have impacted the growth of the RNFS in the developing countries. For some scholars liberalization has brought in positive impacts on the development of the RNFS through urbanization; market, technology and credit linkages; rural-urban industrial integration; and export orientation. Proponents of globalization led rural development often point out how liberalization policies have stimulated rural agro-based processes[13] inducing growth of rural industries (Reardon and Barret, 2000; Davies, 2003). Removal of trade restrictions and consequent decline of transaction costs as well as integration of market, technological and product linkages between rural and urban industrial processes have also been beneficial for the RNFS with increasing capitalist investments from private sectors in recent years:

> 'Since demand for food is income inelastic, these meta-trends [income and population growth, urbanization and female employment, neoliberal structural adjustment programs and modern technology] also fuel disproportionate growth in demand for non-food goods and services, thereby inducing rural industrialization and non-farm employment growth. Meanwhile, the meta-trend of market-oriented economic reforms, often embodied in structural adjustment programs and multilateral trade liberalization, reduces cross-border distribution costs and barriers and gives

[13] Agro-based as opposed to agro-processing is now seen as an important part of rural nonagricultural industrialization although the RNFS was seen as comprised of activities outside the agricultural sector. But rural industries make use of agricultural raw materials and by-products for production of finished consumer goods and therefore are part of agro-based and at time agro-processing industries (as seen in the use of terminology in various literature reviewed here).

> increased currency to profit minded activities by private sector firms.' (Reardon and Barret, 2000: 196).
>
> 'Growth of the RNFE can also be de-linked to varying degrees from agriculture by market and trade liberalization policies that enhance non- agricultural opportunities, and these possibilities are increasing with globalization. Many rural regions have greater opportunity today to find additional motors for growth. Moreover, the "motor" does not even have to be local, as long as the local economy is "open" in that workers can commute and local farm and non-farm firms can sell to the area where the motor is providing job opportunities and generating growth.' (Davies, 2003: 8).

Ellis and Biggs (2001) also pointed out that globalization processes since the 1980s by adopting more participatory, inclusive, action oriented and grass-root level approaches have pushed rural production processes (agricultural led RNFS) to excel in efficiency and increased levels of productivity (2001:443-444). In the context of different developing countries of the world, economic reforms of the 1990s have been argued by many to have opened up new rural employment opportunities due to comparative labor and raw material advantage in small scale industries in the rural areas (Maiti, 2008).[14] Such comparative advantages provide more economic location for processing/assembling activities (urban location being costly), particularly in the context of the growing trend towards decentralized and flexible production systems (Najundan, 1994; Nayyar and Sharma, 2005; Maiti, 2008; Silva and Grossi, 2005; Morris and Basant, 2006). Janvry et al (2005) reported from their own study that neoliberal induced commercialization of agriculture in China resulted in migration of labor away from traditional agriculture initially to urban based activities. However, demographic pressure on land being high in urban areas resulted in weak pull factors although push factors from the countryside was

[14] Maiti points out: 'trade liberalization opens up channels of vertical subcontracting and outsourcing by foreign firms, which can be largely exploited by small firms, particularly if they form a geographical (2008:3).

strong. This resulted in spontaneous development of nonagricultural enterprises by farming household in rural areas (Janvry et al, 2005: 4-5).

For others, neoliberalization has had adverse effects in the form of stagnancy in rural industries, declining local demand for rural consumer goods and entry of urban-based processes into the rural spheres creating conditions of sustainability of small traditional industries. Thus globalization is said to have actually led to adverse impacts on the growth of the RNFS. Rozegrant and Hazell (2001) and Start (2001:496) point out that as the agricultural sector struggles with the adverse impacts of neoliberal reforms[15], fall in the incomes of agricultural households would result in income and employment diversification in low return non farm activities, leading to a stunted growth of the rural nonagricultural sector (2001). On the other hand, Saith (1992) points out that structural transformation due to trade liberalization introduces new technology and products in rural areas leading to declining commercial viability of rural manufactured goods which met the functional needs of the village earlier. This creates competitive pressures on existing small traditional rural industries and creates crisis of sustainability due to their inability to upgrade productivity levels and match the lower unit production costs that modern technology could offer in the absence of state financial support (Saith, 1992: 46). In this context, Kristiansen (2003) has pointed out that in Indonesia in recent times the linkages between the RNFS and agricultural sector has weakened under the impact of

[15] In the form of unequal terms of trade, falling prices of commodities, market competition and low levels of technology etc.

liberalization reforms.[16] New industries in rural areas however are increasingly posing threats to existing 'traditional' and cottage industries in rural areas (Kristiansen, 2003:6).

In the case of India, studies have argued that due to decrease in the budgetary support for rural industrialization from the government to meet enterprise losses in the post neoliberal reform scenario, small-scale rural industries are faced with problems like technological upgradation and availability of credit and raw materials (Vasudeva, 2001; Chadha, 2005). Anticipating the impact of the World Trade Organization (WTO) agreements on small-scale rural industries in 1995, Chadha commented:

> 'No section of our economy and no category of economic functionaries would remain unaffected under the new economic dispensation...Even a small scale, family based industrial enterprise in a village may face a decline in its economic fortune just because the demand for its product is declining now that cheaper substitutes are available through imports, or else, its production efficiency may improve now that raw material costs are lower under the open trade regime or else, it could now be ancillarised to an urban based, modern industrial enterprise and so on. Small and rural industry is most certain to face worst possible situation.' (Chadha and Sahu, 2005: 399).

In the African context studies point out that contraction of the urban formal job market and return of urban migrants back to rural areas due to neoliberalism induced cutbacks as well as the inability of modernizing the agricultural sector due to rising prices has been cited as one reason for growth of low return nonagricultural activity in Zimbabwe (Berkvens, 1997, Kinsey, 2000). Similarly, cutbacks on rural government spending on agricultural infrastructure since the 1990s are cited as a major reason for nonagricultural employment in Tanzania mostly generating informal employment

[16] As a result he sees declining pattern of demand linkages from agricultural surplus incomes in the generation of local small scale, labor intensive enterprises in rural areas refuting the claim of an agriculture led development of rural industries. Instead, urban-based capital is flowing into rural areas to avail rural agricultural resources and surplus labor through value additions for setting up export oriented consumer related industries (Kristiansen, 2003).

channels (Madulu, 1998; Bryceson, 1993). Bryceson also points out that the neoliberal hype of the benefits of market liberalization on agricultural production in Sub-Saharan African countries, has clouded the recognition and realistic assessment of peasant's income diversification and labor allocation behaviors leading to unequal social developmental outcomes (in the form of gender bias and income inequalities) (Bryceson, 2002:731). Citing many studies, Bryceson argues that although diversification of employment and capital into rural nonagricultural activities has accelerated in the post neoliberal era due to attractive opportunities 'presented' outside of agricultural as a part of globalization induced market based 'opportunities', these are essentially misleading in the long run. As in other sector of the economy, the RNFS also faces economic crisis resulting of withdrawal of state for budgetary support to small scale industries, unequal terms of trade and more importantly the ways in which neoliberal development projects increases the degree of social inequality and differential access of opportunities between the rich and the poor (Bryceson, 2002:731).

2.4. Development Consequences of the RNFS:

The existing literature also focuses on the development implications of the nonfarm sector. The non-farm sector has had both positive as well as negative outcomes in terms of income distribution, rural labor relations, as well as caste/ gender/ethnic aspects in the context of specific countries as well as in India.

a) Income and Wages: The non-farm sector has had significant impact on wages and income distribution in rural areas in developing countries:

> 'a) off-farm employment income may serve to reduce aggregate income inequality; b) where there exists seasonal or longer-term unemployment in agriculture, households may benefit even from low nonagricultural earnings; and c) for certain subgroups of the population who are unable to participate in the agricultural wage labor market, notably women in many parts of the developing world, nonagricultural incomes offer some means to economic security.' (Lanjouw, in El Salvador, 2001:531).

Various studies have concurred that incomes earned from the RNFS is significant for reducing rural poverty, important for household welfare as well as improves income levels in other sectors of the rural economy (Slade and Hazell in Malaysia, 1991; Hazell at al in India, 1991; Reardon et al, 1992; 1998 in Africa; Harris-White and Janakarajan in India, 1997; Block and Webb, 2001; Senadza, 2011). It has been also argued that additional incomes earned in the RNFS have implications for food security for rural agricultural households as it allows greater access to food. Also, nonfarm income reduces excessive urbanization and decreases rural to urban economic migration (Reardon, 1998 in African Countries).

A series of household case studies indicate that rural nonfarm income exceeds agricultural wage earnings by a factor of 5:1 in Latin America and by 20:1 in Africa (Reardon, 1997; Reardon et al, 1998; and Reardon, Berdegue and Escobar, 2001), and in India, 4.5:1 (Lanjouw and Shariff, 2002) to name but a few examples of a general pattern (as cited in Reardon et al, 2006:4). In India, a rise in real wage levels, even during periods of slow agricultural decline as in the 1980s, was attributed to the growth and the expansion of the non-farm sector, largely those related to export oriented production.

This was also the period when government policies operated on both the supply and demand side in India (Ghosh, 1995; Unni, 1996; Sen, 1997; Bhalla, 1999). Srivastava (1999) observes that non-agricultural employment in rural areas of Uttar Pradesh in India provided longer days of employment and better wages in a year compared to agriculture; led to an increase of wage levels in agriculture; and incomes from RNFE was a source of political and social prestige for rural households. This, as some have argued, in many regions led to the shift in the labor force from the farm to the non-farm sector and had indirect positive impact on the wage levels in agriculture (Srivastava, 1999: 292; Bhalla, 2005).[17] In Latin American countries like Brazil, Chile, Colombia and Nicaragua, as Reardon et al observed, levels of nonfarm wage earnings was relatively higher than self-employment earnings although the latter was also an important category of household income (2006:6).

However, many studies have pointed out the disparities in the income levels and consequent inequalities in the RNFS. First, push or pull factors determine the levels of income earning between households with push factors leading to low income RNFE (with non farm income as the last resort) in comparison to pull factors, which result in high return RNFE. This segregates households between rich and the poor backed by the fact that income diversification into the RNFS is the domain of the rich and employment diversification is the last resort of the poor (Reardon, 1998; Adams 2002, Rigg, 2006).

[17] As Srivastava observes 'the main reason for this is the competition for labor during the peak season (October to March) between the nonagricultural enterprise and the farms. The non-agricultural demand for labor leads to the determination of wages' (292:1999).

Second, following from the first, assurance of better incomes from the RNFS is also decided by household capacity (between less or better endowed) factors that determines access to or creates entry barriers into the RNFS. Better levels of education, increased asset endowments and social capital linkages etc. have been seen to produce better income returns from the of RNFS (Coppard; Davis, 2006; Lanjouw and Shariff, 2009; Wiggins and Hazzel, 2011:30). Also, some studies showed that decline of agricultural wages in the post liberalization era have led to the regression of the RNFS due to low demand which in turn have impacted wage incomes (Chandrasekhar, 1993; Harris, 1991). Third, for distressed agricultural households which partake in income diversification into small scale enterprises, non farm income is only a means of income transfer from one sector to the other and increases or decreases proportionately at the same ratio as farm incomes (Start, 2001:498). Fourth, studies have found uneven wage and incomes levels between those employed as workers against self-employment in the RNFS, which varies geographically as well. As observed by Berdegue et al. (2001) wages differ across regional zones in Chile where wage employment in RNFE is much higher in the more favorable zone compared to the less. Similarly, Ruben and van den Berg (2001) and Isgut (2004) showed that nonfarm wage income is much higher in northern Honduras near towns that are linked in with better infrastructure and in higher density of rural towns, while in the southern zone infrastructure and town where density is lower. In the case of India as well, wage levels in the RNFE is much higher in states like Kerala compared to many other regions of India (Kannan, 2005). Wage levels also very across sub-sectors of

the RNFS (Start, 2001: 496) depending on the nature of employment-formal or informal (Chadha, 2003).

b) Rural Labor Relations: Many commentators (particularly in the context of different Indian states) have identified some of the positive outcomes of non-farm sector in rural areas particularly pertaining to rural labor relations. It has been pointed out that the rise in the real wages in most non-farm activities, even for a shorter period, had significant impact on rural labor relations in most parts of India (Bhalla, 1999). Rural labor relations specify the economic relationship between employers and workers and how this impact aspects of employment, wages and income for the working class. It has been argued that non-farm employment has also contributed to lower incidences of bonded labor[18] in many places where unfree labor practices in agriculture prevailed in the past (Srivastava, 1989:515 as cited in Lerche, 1999; Kannan, 1999; Wilson in Bihar, 1999; Lerche, 1999; Lucia da Corta, 1999:85):

> '...from caste-based or personally bonded labor sometimes secured by debt frequently extending across generations to long- and short-duration credit contracts apparently with no such tying; from informally defined and open-ended obligations to formal contractual arrangements; from relations based on 'extra-economic' sanctions to ones based on voluntary agreements; from a reliance on intra-village labor exchanges to the conjoint employment of local and migrant workers; and, from permanent farm labor to casual labor. These shifts seem broadly to be correlated also with the growth of non-agricultural employment.' (Rao, 1999:243).

Rise of the RNFS in many parts of India with unequal agrarian relations has given an opportunity for labor to form agency and improve their bargaining position against the

[18] When a worker offers his labor power to his employer in return for paying off impending debt that has been carried on inter-generationally for years. The duration of debt bondage is determined by the ability to pay off the impending debt during which the worker remain legally tied or attached to his employer.

dominant classes (Bhalla, 1999, 2005; Sharma, 1978: 177-8 and Pathak, 1987:192-7 as cited in Lerche, 1999: 2004; Wilson, 1999) even when RNFS sources of employment provided only secondary and seasonal incomes or piecemeal wages for various households (Chari, 2004; Gidwani, 2008).

A feew studies have argued otherwise how nonagricultural employment in rural areas pertaining to rural industries is highly informal in nature with casualized labor markets (Bremen, 1976:1871). As Start observes, the trend of informal employment in the RNFS (particularly rural industries) is mainly attributed to the diversity of the sector and its integration with other sectors of the urban economy:

> 'The RNFS is a very diverse sector: highly lucrative at the top end with mainly formal wage employment and modern capitalized enterprises, but very menial at the bottom end where traditional artisanal skills and poorly paid labor predominate. These sectors are often highly segmented, with movement between enterprises or jobs extremely difficult.' (Start, 2001: 496)

Dirven (2011) however sees informal employment in rural industries as a form of decentralized production as complementary between the rural and the urban sector.

c) Gender and Caste: Gender is a significant concern in the context of the development implications of the non farm sector given the fact that with the rise of global production system there has been an increasing feminization of labor in all sectors of the economy. The RNFS has been argued to have the potential and possibilities of opening up diverse opportunities for women and other marginal groups outside agriculture (ILO, 1996 as cited in Pianta and Vivarelli, 1998; Saxena, 2003). The existing literature however suggests that the actual employment of women in the rural nonagricultural

formal sector has been low when compared to men (less than 30 percent) (Haggeblade at al. 2002 as cited in Davies, 2003:9; Rosegrant and Hazell: 2000). More often than not, women's employment in the RNFS is not counted as paid or remunerative work and do not figure in employment statistics, women are left behind in agricultural workforce as men look out for formal RNFS as well as the fact the female workforce often ends up in low return nonfarm jobs in the rural areas (Coppard, 2001; Davis, 2003; Start, 2001; Lanjouw and Lanjouw, 1995; Haggblade et al, 1999; Lanjouw and Shariff, 2009). So, even when female workforce may be represented in the formal sector of the RNFS, they are grossly underpaid in terms of wage differentials and often do not find full time employment. This as Papola observes is due to the general conception of gender bias in terms of the rural labor market:

> 'Women face discrimination in employment is evident from various gender-differentiated outcomes of labour market processes, such as lower labour force participation rates amongst women, lower proportion of women in the workforce, and still lower share in the better paid and secure jobs and lower upward mobility in the jobs they occupy, higher job losses in the wake of restructuring and technological change and lower average earnings in spite of the legal provision for equal wages for equal work.' (Papola, 2008:18).

However, a few studies point out that although women's share in rural nonfarm wage work is lower than men, women constitute a formidable workforce in the informal sector of the RNFS mostly leading small scale self account household units (40.5 percent, OECD, 2009) (Bagachwa and Stewart, 1992 as cited in Lanjouw and Feder,2001; Lanjouw and Lanjouw, 1995; Eapen, 2001; Cannagarajah et al, 2001; Haggblade, 2006). Women in the RNFS in developing countries are mostly concentrated in rural components of export-oriented industries working from home-based units under informal

work arrangements (Ghosh, 2002; Kapadia, 1999).

Existing research has also argued (particularly in the case of India) that the rural nonagricultural sector provided opportunity for inclusion of marginal groups of population (caste and tribal ethnic groups) in the rural society. Studies in the Indian context suggests that rural nonagricultural employment provides alternate employment possibilities for workers of lower caste and tribal groups who are otherwise socially oppressed in terms of wages, employment and conditions of labor in agriculture (Srivastava, in Uttar Pradesh 1999; Lerche, in Bihar, 1999; Wilson, in Bihar; 1999; De Corta in Andhra Pradesh; 1999; Heller, 1999 and Mathhew in Kerala;). Caste based social forms of differentiation (between higher castes and lower castes) have been a major obstacle to equal access among all groups to land, property and better conditions of labor, employment and wages in pre-capitalist relations of production in the agricultural sector in India[19] in the past, the effects of which is continuing even in present days in newer forms. Comparatively, employment in the rural nonfarm activities (like construction or services) is assumed to have overcome the social barriers of caste based differential access to employment and wages to some extent due to its capitalist character and resultant social relations that are supposed to overcome any pre-capitalist caste based social differentiations. Bouham et al (2004) and Ellis (1998) also express similar potentials in the employment of ethic groups in RNFS in Laos and Sub-Saharan Africa respectively.

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[19] See Mohanty. M (2004), Class, Caste, Gender, Sage Publications.

However, Thorat and Sabharwal (2005) point out that although one of the important focus of the rural workforce diversification in India was to generate an even income distribution among social groups in rural areas, there still exist polarizations among social classes in terms of caste hierarchy: generally upper caste groups are the owners of rural non-farm enterprises, whereas laborers whether hired, casual or owned are those belonging to the lower caste groups (2005). Lanjow and Sharrif points out that: 'individuals belonging either to a scheduled caste or a scheduled tribe are relatively less likely to be involved in cultivation than in agricultural labor, and similarly are less likely to be involved in either nonfarm own enterprise activities or nonfarm salaried employment' (2004:11). Caste-class hierarchy in many non-farm activities has also created rural disputes in many areas where the shift of lower caste women into nonagricultural activities posed a threat to the power of the dominant castes who try to thwart such processes by social and political repressions (Wilson, 1999). It has been pointed out that caste/class and gender are strong filters of entry into, and stratifiers of returns from, the non-farm sector (Harris-White and Janakarajan, 1997: 1474-1475). Scheduled caste workers tend to be screened out of activities with highest returns and are thus restricted to specific manual jobs and also at times require them to work outside of their settlement. There also exists strong affiliation/kinship for members of the same caste, which results in selective employment of workers in certain non-farm activities (Kapadia, 1999; Chari, 2004). This, in turn, makes a particular non-farm activity solely an affair of a specific caste, often reproducing caste-based division of labor (Harris, as

cited in Start, 2001). In case of other identities than caste, Janvry and Sadoulet (2001) also observes that share of ethnic groups in rural nonagricultural activities was very low in Mexico. On a different note, Davis observes that ethnic groups in Uganda were well represented in the RNFS where allocations of public investments were high (Davies, 2003:12). Thus, as emerging from the existing literature, non-farm activities had mixed development implications for various social groups in terms of wage structure and social relations of production.

2.5. Case of Kerala and Coir Industry:

Studies and data have pointed out higher incidences nonfarm activities occupy 65-70 percent of the share of total rural employment for 2009-10) in rural nonagricultural employment in Kerala (Bhalla, 1993; Chadha, 1997; Unni, 1991; Eapen, 1994; Kannan, 2011, Kumar et al, 2011). It has been argued that an early commercialization of the agricultural sector (change in cropping pattern from labor intensive food crops to capital intensive cash crops) during the colonial period led to a movement of the labor force from the rural farm to the rural traditional industries like coir in Kerala (Jeffrey, 1984; Kannan, 1999; Heller, 1999). Production of nonagricultural commodities like coir was also chiefly intended for colonial exports, the scope of which has been widened with the liberalization of the Indian in the 1990s (Isaac, 1992; Heller, 1999). In more recent times, studies have observed that employment diversification in Kerala like most regions in India since 1991 has been mainly driven by distress in agriculture (Eapen, 1995;

Coppard, 2001;Abraham,2009). The impact of trade liberalization on commercial agricultural production has been one important factor behind such distress or 'push' factors in Kerala (Jeromi, 2007).[20]

Although various recent rural non-farm activities have cropped up in Kerala catering to the export process, coir industry is the only traditional village industry that has had historic connections to colonial powers, have been market led in its operation and expanded to integrate with the modern urban industrial sector. The coir industry is an unique rural nonagricultural activity as it encompasses all the different dimensions that constitute the definition of rural nonagricultural employment: sectoral (off-farm to non-farm), scales of operation (micro, small, medium and large), location (local or rural and extra-local or semi rural/semi urban), linkages (sectoral, consumption, trade) and employment and type of activity (part-time/seasonal or full time, wage or self employment etc.)[21] (Isaac, 1992; Heller, 1999; Rammohan, 1999; Eapen, 2001).

The industry has various growth linkages. The initial inception of the coir industry during the colonial phase was an attempt to transfer surplus labor from the

[20] Trade liberalization adversely affected the agricultural sector in Kerala because more than 80 per cent of the agricultural commodities/products produced in the state are dependent on domestic and/or international market situation. With more market orientation and better profitability of cultivation, the share of commercial crops in total area under cultivation in the state has been rising at the expense of food crops. As Kerala's economy was relatively closed until the mid-1990s, cultivation of commercial crops such as coconut, rubber, tea, coffee, spices, etc, was fairly profitable even without much improvement in productivity and value addition because of a protected internal market and prospects for exports. However, with the removal of quantitative restrictions on imports and lowering of tariff levels, farmers cultivating commercial crops have been affected by higher imports and stiff competition for exports in the international market. The imports further increased following the free trade agreement (FTA) with countries like Sri Lanka, which are competitors for markets of commodities from Kerala such as coir (Jeromi, 2007).

[21] Based on how the industry is looked at or what part of the industry is examined in different studies.

agricultural sector to industrial activity (Heller, 1999). Since then, it has been the largest form of rural employment in Kerala after agriculture (Isaac, 1992; Heller, 1999). The cultivation of coconut in Kerala has always been done for commercial purposes, which provides vital source of raw material for industries like coir (Jeromi, 2007). It has been a form of labor-intensive agro-processing industry, which has been significantly location-bound for raw materials earlier as coconut plantations are generally spread across coastal areas. Kerala also has high flows of international migrants to other countries of the world. Therefore, remittances sent back from other countries play a role in local development to some extent through consumption and wage linkages in the non-farm sector (eg: remittances used for construction purpose for real estate business in Kerala which produces employment opportunities for rural areas in the form of wage labour etc.) (Zacharia et al, 2001). However, with the possibility of importing raw materials from other regions, the industry has also benefitted from regional economy driven supply linkages (Rammohan, 1999). Because it is an important form of non-farm employment in Kerala and because coir workers are well organized, the provincial state had been making interventions for building capacity linkages by setting up co-operatives for equitable distribution of income among the working class (Kalamani, 2007).

However, neoliberalization of Kerala's economy has led to crisis of employment and sustainability in the industry in recent years. First there have been shortages of raw materials in recent years along with lack of technological up gradation (Isaac, 1992; Rammohan, 1999). Secondly, the late nineties particularly witnessed (as a consequence

of the neo-liberal reforms) the deregulation and decontrol of the coir industry[22] (Kalamani, 2007). Third, there has been increasing competition from other regions – Tamil Nadu within the national context and Sri Lanka[23] in the global context – regarding coir production and exports.

In terms of employment, the industry spans across both the formal and informal sector. The industry is made up of vertically integrated (in terms of the value chain through sub contracting units) but organizationally distinct production activities, divided between extraction of raw materials and manufacturing (Heller, 1999). Production ranging from processing of the raw materials to the finished products organized in both household units as well as registered factory units (Isaac, 1992; Heller, 1999). About 300,000 units constitute the informal sector throughout the province (Central Coir Research Institute, 2009). The industry has been a pioneer site of active labor and political struggles in Kerala (Heller, 1999). Studies have indicated higher female employment (Mitra, 1998; Pal et al, 1995 as cited in Coppard, 2001) mostly in the rural manufacturing sector and better wages in the RNFS in certain sectors of the RNFS in

[22] 'The opening up of trade regimes has affected price conditions, which are now regulated by the market (Kalamani, 2007). Small-scale operations and co-operatives are those that are bearing the brunt. 'The minimum purchase price of coir products enforced under the Purchase Price Enforcement Scheme (PPES), which was earlier set by the Coir Board, has been abolished in 2002. With regard to export products, regulatory measures were taken to ensure the quality and price of coir products...Small producers had to find a leeway between these two opposing price trends – escalating husk prices and depressed product prices. The prices of husks and fiber have been reining high due to the scarcity of husks and fiber in Kerala...The fiber prices have trebled in the last three years. This situation has also created a new breed of fibre merchants/traders monopolizing the industry who sell fiber and take back the coir and products so produced for a given price, after deducting the price of fiber and a commission on the produce' (Kalamani, 2007:3).

[23] Sri Lanka is the single largest supplier of brown coir fiber to the world market, and together with India accounts for almost 90 percent of global coir exports (Central Coir Research Institute, 2008).

Kerala. There has been massive informalization of work through child and female labor as the industry is getting commercialized at present[24]. Women's employment has been prominent in traditional industries like the coir and has been significant with the emergence of a capitalist buyer's market in recent times (Matthew, 1985).

2.6. Conclusion:

This chapter reviewed the existing literature in the rural nonfarm sector (RNFS) at three different scales: developing countries, India and Kerala. The RNFS is understood as a complex category, which centers around the nature of economic activity people engage in; the social relations of specific activities they engage in; location of living and working; and the 'unit' of analysis (people/household vs their activities). As discussed in the literature, the development of the RNFS is determined by a number of factors. Among them the linkage (forward, backward and consumption linkages) with the agricultural sector is an important driving factor behind the development of the RNFS in most developing countries of the world, including India. While the dynamics in the agricultural sector is a key determinant in the development of the RNFS, various studies have counter-argued about the weakening linkages between agriculture and RNFS in recent

[24] Contextualizing this aspect in Kerala basically in rural industrialization processes, Mathew points out that employment of women is more concentrated in the unorganized sector of Kerala economy compared to that at the all-India level. Women's employment in the non-household industrial sector grew at a higher rate than total employment both in Kerala and at the national level during 1971-81. While the annual compound rate of growth in total employment in Kerala and at national level were 1.16 and 0.001 per cent respectively, in the case of women's employment, the respective growth rates were 1.88 and 1.21, respectively (1985). Mathew points out that 'the structural linkages between the formal and informal sectors and the functional linkage of the latter with the former, and the consequent highly competitive and exploitative conditions, compels and/or enables capitalists to cheapen certain aspects of production, and workers to accept a lower wage packet' (1985:28).

times. Increasing urbanization, rise in the demand for urban products and increasing integration between rural and urban production due to globalization-induced processes have strengthened the urban led linkages of the RNFS in recent time. Alternatively some other studies focus on how neoliberalization-driven distress conditions in agriculture have been a major reason for economic diversification of income and labor into the RNFS, contributing to the weakening linkages between agriculture and the RNFS. The role of the state in facilitating the necessary conditions (infrastructural development, marketing, developing the labor force etc.) that will help in the development of the RNFS is another important area of focus in the existing literature. Existing literature also explores the positive and adverse role of neoliberal globalization in the development of the RNFS in recent times.

The existing literature also studies the development impacts of the RNFS. In this context, there are important discussion on whether the RNFS and RNFE have been able to expand opportunities for better employment and wages; contribution of the RNFS towards the improvement in rural labor relations as compared to those prevailing in the agricultural sector; as well as the role of RNFS in improving the social status of marginal population (gender and caste groups) by increasing their opportunities for better employment and income. The various aspects surrounding the growth, development and development outcomes are also examined in the context of Kerala in general and the coir industry in particular.

Chapter III: Conceptualizing the Rural Nonfarm Sector: A Critique and Reconstruction

3.1. Introduction:

The existing literature on the rural nonfarm sector (RNFS) focuses on three important areas: the ways in which the RNFS is conceptualized; the processes which determine the development of the RNFS; and development outcomes of the RNFS on rural working population. While most studies argue that the development of the RNFS is agriculture-driven, others present counter-arguments, that with increasing globalization-induced urbanization the linkages between the farm and the nonfarm sector in rural areas are getting increasingly weaker. The factors leading to the growth of the RNFS also vary geographically in different developing countries of the world. The role of the state in the development of the RNFS has been the focus of many studies, where the state by facilitating infrastructural development in rural areas and aiding asset generation for the rural population can create conditions for the development of the RNFS. Studies also shed light on the impacts that neoliberalization may have on the development of the RNFS. The development of the RNFS has been argued to have both positive as well as negative developmental implications for the rural poor. Studies have found that the RNFS has positive impact on income and wages; on rural labor relations; and plays an important role in the empowerment of marginal population groups based on their social identities of gender/caste/race/ethnicity. However, studies have also argued that the development of the RNFS has contributed to existing social inequalities in rural areas as well.

Based on this wide-ranging review, this chapter aims to discuss the gaps in the existing literature and provide an alternative framework for understanding the issues related to the development of the rural nonfarm sector (RNFS). The chapter is divided into three main sections following the introduction and ends with a conclusion. Section two, points out several gaps in the literature reviewed in the last chapter. Section three, provides the elements of a basic conceptual framework for this research. The alternative framework examines the nature of capitalist class relations outside the agricultural sector but within rural spaces -- in other words—development of capitalist relations in the RNFS. Based on an understanding of existing class relations, this study will examine the development of the relations and forces of production in the RNFS as mediated by the state, which produces uneven development outcomes. The last section summarizes the main aspects dealt with in this chapter.

3.2. Gaps in the Existing Literature:

There are certain gaps in the existing literature from the standpoint of the current research:

a) Lack of a Class-based Approach to the RNFS: The literature on the RNFS does not adequately address the class-based relations of production[25] in the RNFS. More often than not, the literature points out how unequal income or asset distribution in agriculture or urban industry create conditions for the emergence of RNFS or how the

[25] The term relations of production refer to the concrete set of exploitative social relations between owners of the means of production and laborers- within which commodities are produced and capital accumulated.

same may cause differential access and outcomes in the RNFS for the rural poor. However, such studies fail to capture the relations of production that condition and drive such determinants and inequalities in the RNFS. To the extent that the concept of class in the discussion on social inequality appears in the literature (Unni, 1998; Nayyar and Sharma; Ranjan, 2006; Haggblade et al., 2009), it is often reduced to categorization of classes based on income levels or asset ownership[26]. Absent is an ability to comprehend class as a 'relation' of exploitation between groups of people based on their role in the process of production and how such relations promote or hinder developmental processes within the RNFS. As a result, explanations of the differential access to and outcomes of the RNFS tend to be superficial. Such explanations are often based on this or that contingent factor[27] rather than focusing on necessary causal factors like that of unequal class relations that lead to unequal access to opportunities in the RNFS and produces uneven outcomes.

A class approach to the rural non-farm sector in countries like India is necessary, if we want to understand the causalities that determine the growth of the RNFS and its relationship to other aspects of the economy. Causal factors are the means by which change occurs. As Sayer (2010) points out, causal powers are not just relationships between two discrete events (leading to the so called cause-effect analyses often seen in

[26] Ownership of land or other resources.

[27] As Sayer (2010) notes, relations can be external or contingent as one can exist without the other but significantly related (RNFS and agriculture or industry are separate sectors and only related under certain circumstances). However, relations which are necessary or internal are those where the existence of one is driven by the necessity of the other and vice versa (RNFS and agriculture or industry are mutually dependent on each other for their existence), (Sayer, 2010:60-61).

the existing literature), rather they are the 'liabilities or causal powers' of objects or relations, or the 'mechanisms' through which objects or relations operate (71). Causal powers are not simply inherent in an object or individual but emerge from the social structures and relations of which an object/individual is a part of. As Sayer further explains – 'a causal claim is not about a regularity between separate things or events but about what an object is like and what it can do and only derivatively what it *will* do in any particular situation' (2010:71). In the context of the RNFS, it is therefore important to understand what are the factors and under what conditions do they enable or lead to the development of the RNFS and RNFE and its potential outcomes. The RNFS must be seen in the context of class-divided rural spaces and class dynamics that are highly uneven in character -- these are seen as the principal 'causal' factors that condition the development and development implications of the RNFS. Class relations -- including property relations -- also structure spatial outcome and spatial relations. For instance, in India the countryside has been historically the site for various class-based hierarchies comprising of landowning classes and rich peasants as the exploiting classes, and poor farmers, landless peasants and laborers as the exploited classes. In parts of northern India those propertied classes -- capitalist farmers and landlords -- who could diversify their income into non-agricultural activities are also those classes which could reap the benefits of the green revolution in agriculture due to advantages of land distribution and exploitation of landless labor (Jeffery, 2002; Chari, 2004; Bhalla, 2005; Reddy, 2005, Ranjan, 2006). Commenting on the nature of propertied classes in the green revolution regions of

Southern India, Harris-White and Janakarajan (1997) write:

> 'Diversity is the hallmark of the expansion of rural capitalism here. [The] agrarian households with the larger landholdings with hired labor forces... diversify [not only] into both income-elastic and water-sparing agricultural products but also (because of the ceiling on the absorptive capacity of agriculture and because of higher rates of return) into the non-farm economy.' -- (1997:1475)

The non-agricultural sector has yielded high returns in very few such regions in India, whereas for the rest of India, the developmental outcomes in terms of wage, income, standard of living etc. are still below subsistence level for the vast reserves of the labor force and small peasants. It is one thing to say that by subsuming rural nonagricultural activities to market oriented capitalist processes there will be a reduction in rural inequality, amelioration of poverty and reduction of unemployment. But a class divided rural society will ensure that benefits will be bestowed, more or less, to only those classes (generally the propertied class with few exceptions) who by their respective class positions can influence development policies in their favor and appropriate social surplus by exploiting the weaker class (generally landless labor and small peasantry). A lack of a class approach has led to excessively euphoric accounts of the rural nonfarm sector and its developmental impacts. In particular, the ability of the rural nonfarm sector to alleviate the class-based constraints (e.g. in employment, wages and income) faced in the farm sector is over-emphasized in the existing literature.

Not only did most of the existing literature ignore the 'economic' aspects of the class character of the rural nonfarm economy, it has also not paid much attention to class struggles within it. Analysis of class relations of the rural nonfarm sector in rural India also must take into account the nature of class struggles that have been instrumental in

shaping the trajectory of capitalism in the countryside. Recent studies deal with how class struggles have been shaping the nature of capitalism in the countryside historically (Byres, 1999; Wilson, 1999; Lerche, 1999; Srivastava, 1999; Kannan, 1999, Das 2012). It is important to note that development outcomes in the RNFS, as well as actions of the state is also mediated by class struggles -- both from above (capitalist) and from below (working class). The RNFS has to be looked at as an arena of class struggle where the capitalist/propertied classes are engaged in a struggle to extract surplus labor from the laboring class (Holloway, 1991 as cited in Das, 2011:8). Labor on the other hand, forms an active agency in the reproduction of capitalism (Lebowitch, 2003. 2005 as cited in Das, 2011: 8). Class struggle has a direct implication on social change although there is a need to look at the nature of these struggles and the impact they have on labor relations with the advent of newer forms of capitalism in the countryside under neoliberalism.

b) Inadequate Treatment of the Role of the State: The existing literature under emphasizes the role of the state -- both its class character as well as its transformation from a welfare oriented to neoliberal form in recent times -- in the development of the RNFS. In most of the studies that deal with the role of the state in the development of the RNFS, the state is seen as necessary as long as it can intervene in expanding the growth linkages or building capacity-enhancing resources (infrastructural development; formation of human capital through education, skill formation etc.; provision of credit) for the RNFS, creating conditions congenial for private investments in the RNFS, and

alleviating the adverse impacts of neoliberal reforms on the RNFS.[28] Also too much of intervention of the state in terms of the regulatory policies is considered detrimental to private capitalist investment, as has been pointed out by the neoliberal approach to the state- RNFS relation (Fisher, et al, 1997; Coppard, 2001).

Such an understanding of the state is problematic because: first, the state apparatus in the development of the RNFS, is viewed in a mechanistic (seen here as no more than an instrument or means to facilitate the logistical requirements in the economic development of the RNFS) yet minimalist way (the role of the state is limited to being a mere facilitator without any intervention in the political and economic processes associated with the development of the RNFS). On the contrary, the role of the state is a significant one in the promotion of capital accumulation in the RNFS, which it does by facilitating the exploitation of poor workers and semi proletariat (small producers) by propertied class groups in rural areas and capitalists in urban areas. In recent times the state is aligning increasingly with foreign capital to allow the free play of liberalization policies in the rural nonfarm sector. As addressed in the literature review, this has been manifest in industrial restructuring in rural areas and pursuit of aggressive 'export drives' through nonfarm activities, aligning small scale rural industries into 'clusters' in semi urban semi rural economic processing zones for export and fostering public-private partnerships etc. (Das, 2005, Chadha, 2005; Kalamani, 2007). Second, the state policies

[28] As addressed in the literature review, this has been manifest in industrial restructuring in rural areas and pursuit of aggressive 'export drives' through non-farm activities, aligning small scale rural industries into 'clusters' in semi urban semi rural economic processing zones for export and fostering public-private partnerships etc. (Harris, 1987; Das, 2005, Chadha, 2005).

for the RNFS are viewed as class neutral and seem to be disengaged from the materially driven factors that lead to their formulation and their specific outcomes. The material fact of class relation (that workers have to work for a living wage and employers live off by exploiting the surplus labor of poor workers) is the fundamental principle, which drives state policies and actions. The state in a capitalist society is an agent of the capitalist class (Das, 2007) and its policies-- howsoever inclusive of the (rural) poor-- reflect the interests of the capitalist/propertied class. Selective biases and contradictory outcomes of state policies, caused by the class context in which the state operates, are often ignored in relation to the development of the RNFS.

c) Relation Between Class and Non-Class Entities Missing: The existing literature does draw attention to the RNFS in terms of its implications for socially marginalized groups. However, much of this literature eulogizes the role of the RNFS for providing diverse opportunities -- in terms of income and social empowerment -- for marginal groups of people in rural areas particularly women (IFPRI, 2009; World Bank Reports, 2009). The World Bank goes to the extent of stating that rural workforce diversification through community driven development programs and social mobilization through participation in social networks of women and other marginal groups essentially lead to 'empowerment from social oppression' through increased capacity for collective action (World Bank Group, 2008; Dreze et al, 1998). One must be critical of this: it is necessary to point out that such employment and income opportunities come at the

expense of large-scale informalization of work, casualization of employment and flexible production processes (Hensmen, 2001; Ghosh, 2002; Thorat, and Sabharwal 2005). The claim about 'empowerment from social oppression' is essentially uncritical and misleading. The explanation for such gender bias and racial/ethnic/caste based disparities in employment wages in the RNFS is often attributed to pre-existing patterns of gender roles, perceptions of social groups, socio-cultural behavior and to some extent the implicit underpinnings of prevalent social structures (social stratification based on income levels, cultural and social institutions like households, family etc) in rural areas. While these are true to some extent in understanding social inequalities, the causal factors that lead to disparities of employment and income for marginal groups in the RNFS need to be contextualized as a relationship of exploitation between class (based on exploitation) *and* non-class entities (gender, race/ethnicity, castes).

Class in its more concrete form is inextricably connected with social oppression (gender/race/caste) in specific place and time through which it is reproduced and sustained. Class is an important condition for gender or race/caste although not always reducible to it (Das, 2012: 29). As Giminez (2005) explains, production subordinates reproduction in the capitalist mode of production as a result of which satisfaction of people's basic needs for survival are dependent on the vagaries (ups and downs) of the market. The fact that capitalism is systemically and structurally unable to provide stable and equal source of employment and income for everyone, results in competition among property-less workers in the clamor for scarce opportunities and wages sufficient to

support themselves and their families. This form of competition leads to strategies of reproduction among workers who are made resort to pre-established societal forms and practices of gender, caste/ethnicity/ racial oppression and discrimination to maximize their own individual potential. Thus emerge segmented labor markets, discrimination of wages and income based on social status and identities, or gendered-racial segregation and organization of work places (See Giminez, 2005: 22). The existing literature points out how formal or informal as well as skilled or unskilled employment in the RNFS is uneven for men and women or for upper caste and lower caste workers. Such tendencies (although not explained in the case of RNFS) are the outcomes of the ways through which the capitalist system operates and permeates class-based exploitation based on economic, ideological and discursive practices of social oppression and marginalization (Das, 2012; Giminez as cited in Das, 2012:30). Gender and caste based differences are also important strategies by which workers are divided and collective resistances are repressed. But can gender and caste based discriminations in the RNFS be understood in abstraction from the exploitation and social subordination of direct producers within the RNFS and wider society?

d) A-historical Approach of the RNFS: The existing literature situates the development of the RNFS as contingent on progressive or distress-driven circumstances in agriculture or industry. A mere contingent relationship suggests that either the RNFS on the one hand or the agricultural or the industrial sector on the other can exist on their

own, with the relationship between the two categories – RNFS and agriculture/industry -- becoming important only when they become mutually dependent on each other.[29] For proponents of either agriculture or industry-led development of the RNFS, the latter is seen as a static solution often acting as a standby (residual) for absorbing short-term shocks in agriculture or industry. Such an understanding however, doesn't take into account the historical circumstances that lead to the emergence of the RNFS, as an important economic activity or the material circumstances under which it becomes necessary for such changes (development of the RNFS) to happen over time.[30] In other words, the evolution and the transformation of the RNFS as a continuous historical process is not sufficiently addressed in the existing literature. Except for a few studies (Hymer and Resnick 1969; Chandrasekhar, 1993; Start, 2001) that have tried to touch upon the subject of contradictions within the RNFS based on market based determinations[31], the internal contradictions within the RNFS as they relate to the relations and forces of production and which produces unequal outcomes leading to temporal changes in the nature of RNFS are hardly explained. Not only the contradictions within RNFS but also the internal contradictions of the social relations of production and the productive forces within agriculture or industry that lead to the development of RNFS also become important. Lack of an understanding of the RNFS as a historical process, in

[29] See Sayer, 2010 on necessary and contingent relationship.
[30] In this context, 'contingent' means dependent upon and not necessarily in terms of relation.
[31] Here contradictions in the development of RNFS arises out of market demand and supply conditions based on growing consumer needs. These consumer needs change with raising income, rate of urbanization of impact of liberalization. Such conditions according to these scholars contradict the development cycle of the RNFS.

the existing literature makes it 'presentist' and 'instrumental' (serving as a means to an end) in its approach.

e) A-spatial and 'A-scalar' Perspective of the RNFS: Empirical studies focus on the geographical variations in the development of the RNFS. In doing so, such studies contribute towards the identification of general trends and patterns of the RNFS across various geographical spaces over time. However, they fail to satisfactorily explain the factors that lead to specific outcomes or effects of the RNFS in specific places. The spatiality of the RNFS is under-emphasized. In fact, more often than not, most of the existing literature (Chadha, 2005; Bhalla, 2005; Ranjan, 2006; Haggblade et al, 2009) tends to generalize the dynamics of the rural nonfarm sector -- as occurring due to a number of general factors with slight variations in their combinations geographically, but exhibiting more or less the same trends and processes in different places. The geography of the RNFS as conditioned by the nature of place specific social relations of production within the sector, which produces differential outcomes is paid little attention.

Often times, place-specific empirical studies are conducted without reference to various scalar processes (regional, national and global scale processes) within which developments in particular places are embedded. The dialectical relationship between the local and the global and various scales in between is often lost (Woods, 2007; McCarthy, 2008). A critically informed empirical study will understand the local and the global not as separate entities, but as necessarily related.

Based on the theoretical as well as empirical criticisms of the literature reviewed above the following section will briefly point out an alternative framework to conceptualize the RNFS.

3.3. Elements of an Alternative Framework for Understanding the RNFS:

The development of capitalism in rural spaces has always been contextualized and debated from the vantage point of the agricultural sector and the agrarian society. Scholars from Kautsky (1899 as cited in Das 2007) to Lenin (1899) have explained the development of capitalist class relations primarily, if not exclusively, in agriculture. Indeed, the history of political economy of development, and especially in rural areas, has been, to a large extent, the history of agrarian relations and agricultural development. The possibility of a fledgling RNFS was visualized as arising out of the contradiction of capitalist commercial agriculture and the market expansion of the rural handicraft profession (Lenin, 1956:354-413[32]). However, small handicraft based rural nonagricultural activity was seen as a transitional phase in the progressive development of agrarian to industrial capitalism. Therefore, the formation of capitalist relations of production in the RNFS, as emerging from its internal contradictions (at a systemic level and based on its class dynamics), has never been fully explored. This is a problem, given that in more recent times, the nonagricultural sector has emerged as an independent economic sector in rural areas. This process has been driven by, among other things,

[32] Lenin, V.I. (1956), Development of Capitalism in Russia, Foreign Language Publishing House, Moscow.

contradictions in capitalist development in agriculture on the one hand and penetration of urban and global capitalist forces in rural areas on the other. Thus, it becomes pertinent to understand the historical-geographical development of capitalist relations in the RNFS -- evolving from its own contradictions -- outside of agriculture but within rural spaces. Therefore, the aim of this dissertation is to explore from a dialectical and historical materialist perspective:

a) the development of class relations, including capitalist class relations, in the RNFS;

b) development of the productive forces as influenced by these class relations;

c) the role of the capitalist state in the development of capitalist relations in the RNFS;

d) the uneven geographical consequences of the RNFS as an outcome of capitalist development processes within this sector; and

e) inter-connections between class and non-class relations and implications of these inter-connections for the development of the RNFS.

Based on such initial assumptions, some of the conceptual themes of this theoretical framework are discussed below:

a) A significant aspect of historical materialism is to understand any economic process within capitalism from the vantage point of the production and exchange of commodities, which take place through definite social relations. Social relations are based on people's relationship to one another and their relation to the means of production. In his analysis on wage labor and capital, Marx calls attention to the fact that social relations of production are the result of the interaction between human beings in

the process of transforming nature: '...in the process of production, human beings work not only upon nature, but also upon one another. They produce only by working together in a specified manner and reciprocally exchanging their activities. In order to produce, they enter into definite connections and relations to one another, and only within these social connections and relations does ... production take place'[33] (1847). Production relations in a specific mode of production are based on the ownership and control of labor and means of production by some classes of people over others creating relations of dependencies and exploitation. According to Cohen production relations -- '...are either relations of ownership by persons of productive forces or persons or relations presupposing such relations of ownership. By ownership here is meant not a legal ownership but one of effective control' (2000:35). Aspects of 'ownership' and 'control' then divide groups of people into specific class categories -- between those who own and control means of production and control the labor process and those who perform labor for these owners. This then brings us to the question of how class relations structure the process of capital accumulation in specific place and time. The social relation that determines the production of value and commodity exchange is one of class relation between capital (in forms of ownership and control) and labor (dependent on capital for its reproduction). It also includes relations within classes (e.g. relations of competition between capitalists). Relations of production along with productive forces available in that society, form the economic sphere of the society, which evolve in the

[33]Marx's Collected Works, (1948): Wage Labor and Capital. Marxists Internet Archive (www.marxists.org).

course of the processes of production itself and whose concrete forms exhibit spatial variability.

b) Productive forces or forces of production comprise of labor power and the means of production (raw material and instruments of labor) necessary for the development of human society. According to Marx, the term 'productive forces' encompasses the material or objective means through which the existence of human life is sustained and reproduced (1867). Marx calls the use of labor power as labor itself[34], which is the way by which people confront the untamed forces of nature and transform them for their own material existence [35] (Marx, 1867: 283).[36] Labor power is defined as people's physical abilities (natural forces that constitute his bodily organs) to work along with his mental capacity to conceive the nature of work (labor process) and realize the purpose of this work -- the foundation for his survival. While labor power forms one part of the productive forces, the other part is comprised of raw materials and instruments of production. According to Marx, raw material is an object of labor and becomes so only when it has been altered through previous forms of labor power (1867:284-85). Instruments of production act as a medium that connects labor power to raw material, the former transforming the latter (Marx, 1867).

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[34] Marx, K. (1867) Capital Vol I :283

[35] "Labor is first of all, a process between man and nature, a process by which man, through his own actions, mediates, regulates and controls the metabolism between himself and nature' (Marx, 1867: 283).

[36] Marx, K. (1867) Re-printed Version (1977) Capital : A Critique of Political Economy: Vol I, Vintage Books Edition, NY.

The process through which the combined functions of these forces of production work towards the production of a useful commodity is what Marx identifies as the simple labor process in a capitalist society. Marx says that labor process in its pure and simple form is composed of the following elements -- '1) purposeful activity, that is work itself 2) the object on which that work is performed, and 3) the instruments of that work' (Capital, Vol. 1, 1867: 284). The simple labor process according to Marx only serves the purpose of the production of a use value:

> 'In the labor process, therefore, man's activity, via the instruments of labor, effects an alteration in the object of labor which was intended from the outset. The product is extinguished in the product. The product of the process is a use value, a piece of natural material adapted to human needs by means of a change in its form. Labor has become bound up in its object: labor has been objectified, the object has been worked on.' -- (Marx, Capital Vol 1: 287)

But as Marx says, use values for the capitalists are significant only if they form the 'material substratum' for exchange value. In the words of Marx:

> 'Our capitalist has two objects in view: in the first place, he wants to produce a use-value which has a value in exchange, i.e. an article destined to be sold, a commodity; and secondly, he desires to produce a commodity greater in value than the sum of the values of the commodities used to produce it, namely the means of production and the labor-power he purchased with his good money on the open market. His aim is to produce not only a use-value, but a commodity also; not only use-value, but value; not only value, but at the same time surplus value.' -- (Marx, 1867:293).

This is the main aspect that distinguishes the simple labor process from the capitalist labor process. Capitalist labor process and capitalist production, is based on the creation of surplus value and its appropriation from the working class by the capitalist class or its representative.[37] Use values are produced as commodities for exchange value, which

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[37] Marx divides the working day into two parts: the first part is necessary labor-time. This time is fixed and workers produce value that is equivalent to the wages earned in return for their labor power. The capitalist at the time of buying labor power in the market buys it for an entire working day whose hours are not fixed at that point. The second part is for surplus labor time. This time during which workers produce surplus

changes money into capital. This principle defines the 'bourgeois society, the society that rests on *exchange value'*.[38] A commodity, according to Marx is a unity of use value and value and its production 'must be a unity, composed of the labor process and the process of creating value' (Capital, Vol. 1, 1867: 293).

The form in which productive forces are available to a society and the degree to which they can develop is indicative of the social character of the mode of production and dialectically related to 'the social relations within which men work' (Marx, 1867: 286). The process of valorization and the need for surplus capital to accumulate leads to an intensification of the labor process and consequently the transformation of the means of production to a higher order. Progressive advancement in the mode of production reflects the revolutionary transformation in the correspondence between relations and forces of production within specific social formations. G. B. Cohen says that: '...growth in productive power is the force underlying social change' (Cohen, 2000:345). Development of productive forces transforms social relations, but it is also true that for productive forces to transform in a revolutionary manner from its existing state there needs to be an inner compulsion determined by the dynamics of capital accumulation which is mediated through the complexities of class relations of production. There is a dialectical relation between productive forces and relations of production. The inner dynamics of capitalism works through changing property relations that command

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value is not pre-determined. Surplus labor-time must be greater than the necessary labor- time for production of surplus value (Marx, Capital Vol I:293-306).

[38] http://www.marxists.org/archive/marx/works/1857/grundrisse/ch03.htm.).

increase in productive forces for extraction of surplus value in the process of endless compulsion to accumulate and maximize profit. As Marx points out:

> '...the mode of production, the relations in which productive forces are developed... correspond to a definite development of men and of their productive forces...and...a change in men's productive forces necessarily brings about a change in their relations of production.' -- (Karl Marx, 1847: 137)[39]

However, social change is not only the outcome of systemic transformation of internal structural formations alone but is also subjected to larger internal and external processes of social formation, class struggle, state policies and imperial forces under specific historical conditions.

c) The state is a critical agent along with capital and labor in the development of global capitalism, including in the context of third world capitalist countries. So far as state actions are concerned, state policies reflect the state's intention in promoting capitalist development. This makes the state an agent of the propertied class. As Marx and Engels said: 'The executive of the modern state is but a committee for managing the common affairs of the whole bourgeoisie' (Marx, 1976: 486). The state is not a disembodied apparatus but constituted of state actors often belonging to or adhering to the interest of the powerful propertied class and often promoted by them (Miliband, 1983). But state policies are not always and on every occasion and immediately determined by the interests of the capitalist class. On the contrary, state policies, within limits of capitalist property relations, reflect the balance of class forces at a given point in

[39] Marx, K. (1847), Poverty of Philosophy, www.marxists.org

time (Holloway and Picciotto, 1977 as cited in Das, 1996; Poulantzas, 1978; as cited in Das, 1996). Thus state policies (and the actions of the propertied class) although intended to promote capitalist relations may be constrained at times due to the interest of the working class and their struggles whose political interest is represented by the form the state takes at specific place and time. Such tendencies may contradict the interests of the propertied classes and may temporarily halt the capitalist process in the short run. But at the same time, they form the ideological base on which the hegemony of the capitalist class sustains itself in the long run (Poulantzas, 1978:190-91 as cited in Das, 1996:33).

An examination of the class character of the state is particularly important in the context of postcolonial third world countries like India where the state has been the forerunner and the decisive force behind state-led development planning since the post independence period. It is now a major facilitator of neoliberal capitalism since the 1980s. Indian society is a class -divided society and capitalism is the dominant mode of production (Das, 2007). On the one hand an alliance of urban capitalist and rural landlord class control and influence the state administrative body composed of bureaucratic elites who are more often than not members of the propertied class. The working classes in both rural and urban areas and small-scale farmers constitute the other end of the spectrum. Each class has its own fractions, which exert pressure on the state periodically -- sometimes for interests that are against their own class positions.[40] Resistances of the

[40] Some of these fractions are non-capitalist in character engaged in non-capitalist relations of production for whom capitalist development in general may be significantly against their material interest. See Thorner, A. (1982), 'Semi-feudalism or capitalism? Contemporary Debate on Classes and Modes of Production in India', *Economic and Political Weekly*, 17:49.

working class have become very limited under the pressure of the current neoliberal nature of the Indian state. The conflict between class fractions within and among dominant classes as well as the political engagements of state actors influences the outcome of state policies in India, which at times can be detrimental for the development of capitalist relations (see Kohli, 1987; Das, 2007). This does not indicate that the state is class neutral and simply an arbitrator of conflicting classes (Byers, 1997).

Other than its political form, the Indian state also has a territorial form wherein the federal character of the state is organized at the sub-national level regarding administrative functioning. Sub-national state administration allows for better representation of the lower classes -- as well as small-scale property-owners -- in state developmental policies due to their close proximity in terms of interaction with state administrators (see Das, 2007). Although the sub-national state administration in India has considerable 'relative autonomy' in implementing policies, it is however still bound to the regulatory tactics of the central administration[41] (Kohli, 1989; Mannor, 2001; Kannan, 1999:142). Nevertheless, it is this scalar hierarchy of the Indian state that has important implications for development policies both in the rural and urban context particularly in the current neoliberal period. Viewed this way, the state, organized at national and provincial scales, is essentially a class state, which is reflected in the

[41] In the context of Kerala, see Kannan, K.P. (1999), Rural labor relations and development Dilemmas in Kerala: Reflections on the Dilemmas of a Socially Transforming Labor Force in a Slowly Growing Economy, Journal of Peasant Studies, 26:2:142).

selective class bias in its policies producing uneven social, economic and geographical development outcomes.

d) In Marxist political economy, 'development' in capitalism means the qualitative changes in society brought about by the development of the forces and relations that constitute the economic structure of that society (Peet and Hartwick, 2009:156). More specifically, development refers to the development of productive forces -- instruments of production and labor power -- as reflected in the increases in productivity of production processes (the material base of human existence) (ibid). Increase in productivity yields the possibility of a better quality of material life -- increase in employment and wages, improvement of the social and physical conditions of human existence as well as decrease in forms of social inequalities. But productive forces cannot develop by themselves alone. As mentioned earlier, the development of the productive forces are intricately connected to the relations of production; these two aspects of the economic structure along with the dynamics of state and politics constitute the mode of production.[42]

Class relations and the contradictions they impose on the development of productive forces produce uneven developmental outcomes at various levels. Uneven development of the productive forces has consequences for economic development (employment and wages), which in turn produces uneven social outcomes (income, labor relations, health etc). Uneven development is also geographically determined. Spatial

[42] Based on Peet and Hartwick (2009)'s model of the mode of production (2009: 156)

unevenness is informed by the systemic contradictions of capitalism as a social system. Faced by periodic crisis of profitability and stagnation in particular places, capital seeks out newer geographical spaces -- globally, regionally and across local places -- for its continued reproduction (Harvey, 2006).[43] Place based unevenness on the other hand is manifested in the spatial organization of social class relations, which are unequal in nature. Unequal class relations understood as relations of exploitation and power based subordination and domination by one class over the other also divide one geographical space from the other in a systematic hierarchy of places. This happens on the basis of the respective concentration of the powerful as well as subordinated classes in different places leading to the spatial organization of social relations of production. Uneven geographical development also impacts as Smith points out, 'systemic hierarchies of spatial scales' (the global and the local or as between the urban and the rural) (Smith, 1994:135). Uneven development or development outcomes not only refer to the geographical differentiation of capitalism and capitalist processes, but also 'uneven rates of growth between different sectors of the capitalist economy' or between different sectors of a particular capitalist production process (agriculture/ industry or the raw material/finished goods sector of the coir industry) (Smith, 1994:99). Uneven development of spatio-social (and scalar) relations is also driven by mutually defining definition and necessity between place and space, and reflects the economic division of

[43] 'One the one hand spatial barriers and regional distinctions must be broken down. Yet, the means to achieve that end entail the production of new geographical differentiations, which form new spatial barriers to overcome. The geographical organization of capitalism internalizes the contradictions within the value form. This is what is meant by the concept of the inevitable uneven development of capitalism' (2006:417).

labor in society and unequal relationship between classes (Massey, 1994:87, emphasis added).

Socio-spatial variations are inherent in social relations of production: 'Social relations such as relations between owners and laborers and relations between the state and society are necessarily spatial' (Das, 2001:360). The power dynamics present in the society exercised through class control of assets, labor and political power is locally expressed and reproduced (Massey, 1994). Also, state-society relationship is different at different levels of hierarchy that is, at the national, sub national and local. Thus as stated in the existing literature, the effects of the rural nonfarm sector cannot be the same in all places and scales at the same time. Place specific social structures (class relations, labor process, class struggles) give rise to uneven outcomes of rural nonfarm activities which are further manifested in variations in employment, wage structure, infrastructural development etc.

3.4. Relations of Production and Productive Forces in the RNFS:

The development of the RNFS in India is essentially the development of market relations, including capitalist market relations, outside agriculture but within rural spaces. Colonialism in India and Kerala by initiating linkages of agricultural and later nonagricultural production to the global market have played an instrumental role in creating specific conditions of production, the emergence of specific relations of production and spatial organization of production in non agricultural activities like coir

production in Kerala (Isaac, 1983, 1990; Jeffrey, 1984; Kannan, 1999; Heller, 1999; Balakrishnan, 2005). Colonial trade led to the early formulation of rural nonagricultural traditional industries (like coir) built on the supply of local labor and resources under the ownership and control of the British trading-capitalist class. Commercialization of agriculture towards export oriented production and change from labor intensive to capital-intensive cropping patterns (as in the case of Kerala) ensured a ready surplus of labor reserve in the rural countryside, which was employed in the British factories in rural areas. The entry of Indian entrepreneurs in the industrial production scene in the late colonial era, the social and spatial organization of the production process and relations of ownership, control and exploitation between different groups of employers and workers led to the emergence of a specific set of social relations of production outside agriculture (in the rural nonagricultural sector) but within rural places. Such processes resulted over time in the formation of an array of classes based on their role in the production process and their relationship to the means of production. As in agriculture, the classes in the nonagricultural sector in rural areas are also determined on the basis of ownership and control of the means of production. The differential ownership of the means of production (between the propertied and the laboring classes) leads to the development of a range of economic contradictions in the form of not only intra-class competition, internal class fractions and class polarization but also in the forms and relations of

exploitation and control of the workers by the propertied classes (based on Lenin, 1956:172-73).[44]

The fact that the RNFS has been integrated into global circuits of production in more recent times has intensified[45] the scope of capitalist competition among the various fractions of the capitalist class. The endless drive for profit accumulation driven by processes of market-based competition then calls for valorization of individual capitals through increases in the productivity of their labor processes and the increased production of outputs per unit. Need for increased productivity levels require revolutionary transformation in the productive forces, particularly technological revolution in the means of production. However, the extent to which the development of the productive forces through technological means can be realized to its fullest potential in raising the productivity of labor depends on specific contexts in specific place and time. These contextual factors at times may pose contradictory outcomes in the development of productive forces. In the RNFS technology driven development of productive forces runs the risks of large-scale unemployment, un-sustainability of small-scale production in rural areas, and volatility of market conditions. However, most significantly, the articulation of capitalist (large capitalist production) with non-capitalist[46] relations (independent small scale household based production) in the realization of surplus value

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[44] 'The sum total of all economic contradictions among the peasantry is what we call the disintegration of the peasantry' (cf. Lenin, 1956, 172-189).

[45] Although competition has been an integral part of nonfarm production processes, the scale of such capitalist competition has been expanded with neoliberal globalization.

[46] Here non-capitalist is not understood as pre-capitalist relations of production like slavery, feudalism etc. Rather the distinction between capitalist and non-capitalist is based on the principle of capital hiring wage labor in the case of the former, and independent producers hiring family labor in the case of the latter.

creates uneven outcomes of the technological process between different sectors of the rural nonagricultural activities like rural industries; different sectors of the industry; between the capitalist and the semi-proletariat (independent small scale) and laboring class; and between fractions of the same classes.[47] Manifestation of such contradictions becomes apparent in technologically induced overproduction and devaluation in small scale production units; a resultant fall in rates of profits and crisis of sustainability of individual units; structural resistance that has its roots in unequal class relations; and more importantly the degree to which technological development matches the need for the realization of surplus value in a labor surplus economy. Class based social relations of production in the RNFS under these circumstances then become fetters in the development of productive forces and the progressive development of the mode of production. Development of the productive forces in the RNFS also depends on the nature of class struggles, which produces conditions that advance or retard their development.

The development of the relations and forces of production in the RNFS is mediated by the state. The state in India has been playing an important role in the capitalist development of the RNFS (as in agriculture), since the colonial era to the recent neoliberal era. For instance, while state policies aided colonial capitalist development

[47] Technological development seen as a means to increase relative surplus production in the coir industry explains why technological gains are not equally redistributed in all sectors of the industry and accrues to only a small section of the industry. It was also shown how capitalist competition for surplus value accumulation is detrimental to the growth and expansion of the productive forces in the industry. An examination of the raw material crisis outlines how natural conditions imposes limits to capitalist accumulation in the long run, wherein short term counter strategies to address this problem only aggravates its further.

prior to 1950s, the period between 1950s and 80s was marked by protective policies towards the industrial sector as a whole and the RNFS in particular. While the state favored urban industrial development between the 1950s to the 1980s, the rural traditional industrial sector was largely marginalized or at best integrated as an appendage to the urban industrial sector through industrial incorporation policies (Fisher et al, 2007). On the other hand, state policies in favor of the development of the urban industrial sector during this period reflected two aspects: first the Indian state's initiatives to promote capitalist development in postcolonial India in the manner of the modern industrial nations of the world during this time; and secondly, to facilitate the interests of the domestic capitalist class. The business class in India largely supported the postcolonial urban industrial development planning pursued by the Indian state immediately after the independence of the country in 1947, as it favored their domestic accumulation strategies and protected them from global competition (Chibber, 2005). As Chibber says, 'business groups launched an all-out offensive against all instruments designed to give teeth to the planning apparatus, while clamoring all the while for more subsidies and more protection. State intervention in industrial development would be tolerated, but only if it was on the invitation of business groups – not at the discretion of planners' (Chibber, 2005:152). Over emphasis on urban industrial development and protection of the interests of the urban propertied/capitalist class in state policies during this time overshadowed any effort towards the capitalist development of the rural nonagricultural sector (particularly rural industries). However, the turn of state policies

towards market oriented capitalism since the 1990s was marked by the advent of neoliberal globalization and the role of state intervention in facilitating private capitalist development in the rural countryside through the RNFS. While discussing state policies, the territorial form of the Indian state should also be taken into consideration in the uneven pace and form of state policies towards the nonagricultural sector.

A class based approach of the state -- in understanding its actions and policies for the RNFS -- will unravel the ways in which the state promotes capital accumulation by mediating the interests of the dominant propertied classes in rural areas and capitalists in urban areas (Byres, 1997; Das, 2007) through the rural nonagricultural sector. It will also contextualize the RNFS in recent times as essentially a neoliberal state driven project wherein the state intervenes as and when necessary to facilitate the process of capitalist accumulation (domestic or foreign) by exploitation of the poor workers outside the agricultural sector but within rural areas. The state accommodates market led economic growth in the RNFS not only objectively but also ideologically -- through so called 'inclusive' development policies for the workers and intervening in curbing active labor resistances through coercive or discursive means when necessary (Patnaik, 2001; Das, 2007). Thus, if the RNFS is a capitalist project whereby the state facilitates the process of private capital accumulation, then the state has to be a *necessary* condition for the capitalist economic development of the RNFS, not a *contingent*[48] one as has been expressed in most of the existing literature. Only when the class character of the state is

[48] Here contingent or external relations means that the RNFS can exist without the state (Sayer, 2010).

seen as a necessary condition for the development of the RNFS, will it be possible to assess the differential biases and uneven outcomes of the state policies for the RNFS.

The capitalist development of RNFS is characterized by spatial and social unevenness. Concentration of the large scale capitalist class and their means of production in specific urban locations (cities and small towns as in the coir industry in Kerala) is an extension of rural nonagricultural processes into urban areas. The rural nonagricultural sector comprises (in the case of the coir industry in Kerala) of the small rural capitalists on the one hand and the non-capitalist propertied classes, the semi-proletariats and working classes on the other, the latter category being hired for a living wage by the former. The geographical differentiation of economic activities and the relations of production associated with such activities lead to the spatial organization of social relations in the rural nonfarm sector. Such patterns then lead to uneven geographical development of capitalist relations in the rural nonagricultural sector, wherein some places and the classes that are concentrated in them become dominant in terms of control and power over the activities of the subordinated places and their respective classes. Differential ownership and corresponding control of the means of production among classes also lead to uneven geographical distribution of raw material, means of production, technique of production and types of labor power in the RNFS, particularly exemplified in the case of the coir industry.

The rural nonagricultural sector is not only differentiated in terms of class relations over space, but developmental outcomes of the RNFS in terms of employment

and wages as well as social and physical wellbeing are also socially stratified along the lines of non-class entities like gender and caste. Differentiation of non-class entities (gender/caste) in the RNFS is conditioned by pre-existing class relations in specific place and time. Gender and caste based access to better wages and employment in the RNFS is conditioned by the systemic contradictions in the capitalist system of production (scarcity of employment opportunities and competition among workers for a living wage, etc.) and the articulation of social identities into class-based relations of exploitation and social oppression.

Thus, uneven class relations in the RNFS -- between those who own and control the means of production and those who have nothing other than their labor power for subsistence -- and their impact on the advancement or retardation of the productive forces, as mediated by policies of the state over time, space and scale, should be seen as the determining factors that lead to the uneven social and geographical development of the RNFS in developing countries. Contradictions in the development of the productive forces and unequal class relations have implications for employment and wages in the RNFS with varying place-based outcomes. Uneven development in employment and wages have direct implications on rural incomes and wellbeing, rural labor relations in the RNFS and class based discriminations of social identities like gender, caste/race /ethnicity. Gender and caste based discriminations in the RNFS have to be understood as part of the exploitation and social subordination of the working class within capitalism in

general and the creation of ideological and discursive practices of social oppression to reproduce such forms of exploitative relations in particular.

Thus an alternative framework for understanding the RNFS must pay attention to its class character; it must pay attention to the capitalist development of the RNFS in terms of both productive forces and social relations. This study, while focusing on the specific transformations in the social relations of production in coir industry in Kerala, will do so with reference to the larger historical and spatial processes of accumulation happening at higher scales (national and global). In the coir sector, there is, for example, a need to examine the specific ways in which export oriented industrialization happens in rural spaces. Analysis of these specificities will inform the way global processes of capitalist accumulation implicate specific spaces in its fold; it will also reveal the specific ways in which rural capitalist accumulation outside of the agrarian sector happens. A historical-geographical materialist understanding of the RNFS will look at such development processes in relation to other aspects of the economy (agriculture or industry) as an integrated whole within the capitalist system of production, not as discrete processes. It will take into account the motions and contradictions of the material conditions of existence[49] (of the relations and forces of production) both within and outside the RNFS that transform it over time and produce socially and spatially uneven outcomes. In doing so, the emergence of RNFS would not be reduced to merely crisis aversion mechanisms/strategies (as the livelihood approaches suggest) or demand-supply

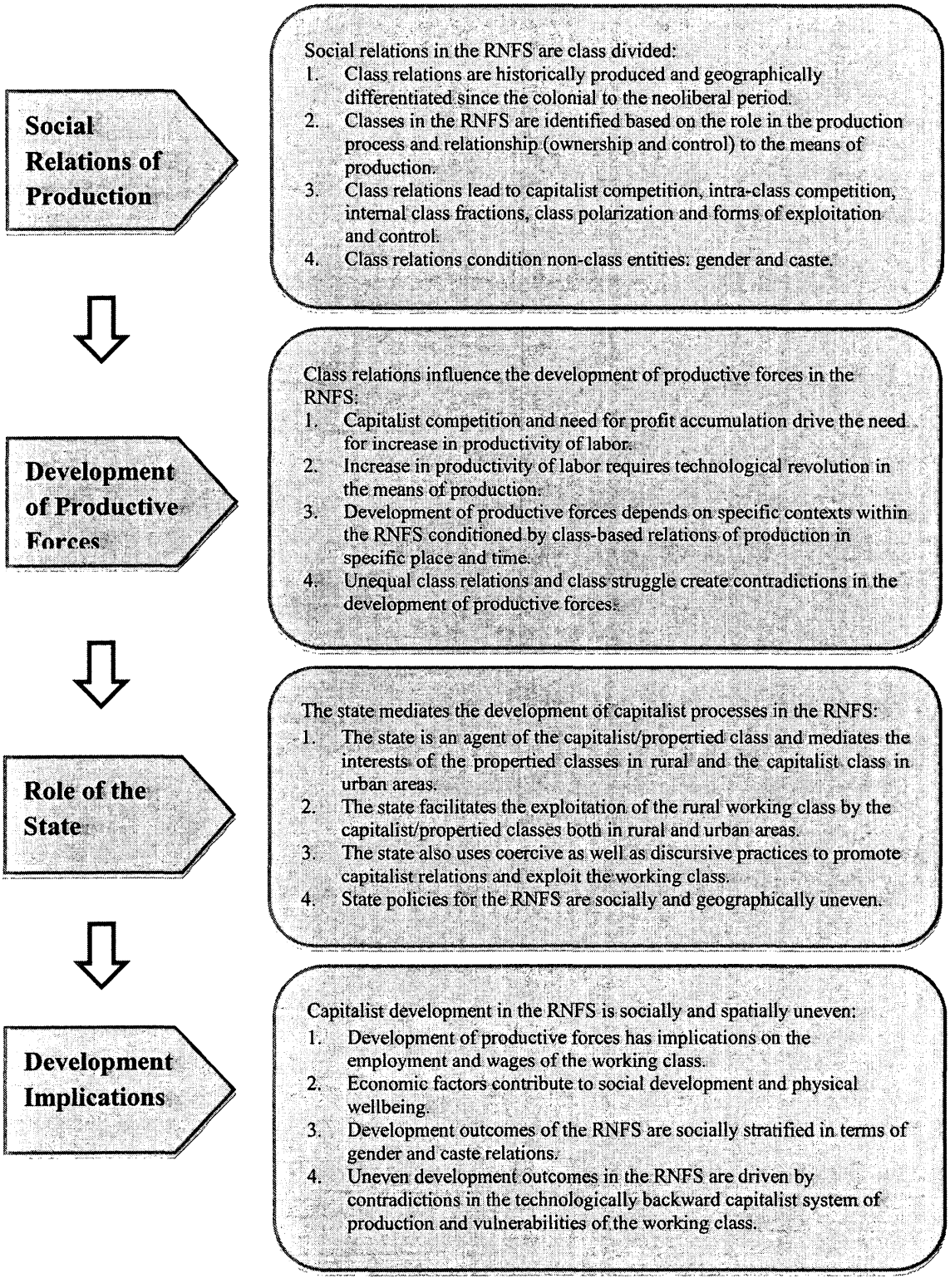
[49] Material conditions of existence are the means of life necessary for human existence and development of any human society (Marx, 1867).

driven phenomena (linkage or capacity theories suggest). Rather, a materialist approach will situate the RNFS not as contingently related to the other aspects of a rural or urban economy, but a necessary condition driven by the material circumstances of human society (Sayer, 2010).

An important objective of such an alternative framework is to examine whether the development of capitalism in the RNFS in India is fundamentally different from the capitalist development process in agricultural sector. If not, then the credibility of the RNFS as a novel prospect in rural development prospects in India has to be re-examined in the light of similar contradictions and constraints faced in the agricultural sector.

A diagrammatic representation of the conceptual framework is provided below in Fig 3.1.

Fig 3.1. Conceptual Framework for the Rural Nonagricultural Sector in India.



3.5. Conclusion:

The objective of this chapter was to present a critique of the existing literature on the RNFS and then provide an alternative framework for understanding the RNFS. There are few gaps in the existing literature: first, the literature on the RNFS does not adequately address the class-based relations of production in the RNFS. Absent is an inability to comprehend class as a 'relation' of exploitation between groups of people based on their role in the process of production and how such relations promote or hinder developmental processes within the RNFS. Second, the existing literature under emphasizes the role of the state -- both its class character as well as its transformation from a welfare oriented to neoliberal form in recent times -- in the development of the RNFS. Third, the existing literature does draw attention to the RNFS in terms of its implications for socially marginalized groups. However, such discussions are not critical in their understanding of the causal factors -- contextualized as the relationship of exploitation between class (based on exploitation) *and* non-class entities (gender, race/ethnicity, castes) -- that lead to disparities of employment and income for marginal groups in the RNFS. Fourth, the existing literature situates the development of the RNFS as contingent on progressive or distress-driven circumstances in agriculture or industry. Such an understanding however, doesn't take into account the historical circumstances that lead to the emergence of the RNFS, as an independent economic activity or the material circumstances under which it becomes necessary for such changes (development

of the RNFS) to happen over time. Fifth, empirical studies focus on the geographical variations in the development of the RNFS. In doing so, such studies contribute towards the identification of general trends and patterns of the RNFS across various geographical spaces over time. However, they fail to satisfactorily explain the factors that lead to specific outcomes or effects of the RNFS in specific places. The spatiality of the RNFS is under-emphasized.

The alternative framework, informed by Marxist political economy, has four substantive elements through which the RNFS will be re-examined: social relations of production, productive forces, role of the state, and development implications. The aim of this framework is to understand the development of capitalist relations – as relations and forces of production – in the RNFS, as mediated by the state, which produces uneven development outcomes, socially and spatially. The historical development of the RNFS in India has been essentially driven by the development capitalist market relations -- outside agriculture but within rural spaces – since the colonial period and intensified in the current neoliberal period. Colonialism in India and Kerala by initiating linkages of agricultural and later non-agricultural production to the global market have been instrumental in creating specific conditions of production, the emergence of specific relations of production and spatial organization of production in non agricultural activities like coir industry in Kerala. Such processes resulted over time in the formation of classes based on their role in the production process and their relationship to the means of production. As in agriculture, the classes in the nonagricultural sector in rural areas are

also determined on the basis of ownership and control of the means of production. The differential ownership of the means of production (between the propertied and the laboring classes) leads to the development of a range of economic contradictions in the form of not only intra-class competition, internal class fractions and class polarization but also the forms and relations of exploitation and control of the workers by the propertied classes.

The integration of the RNFS to the global circuits of production in more recent times has intensified the scope of capitalist competition among the various fractions of the capitalist class. Capitalist competition and need for profit accumulation requires valorization of individual capitals (different fractions of the capitalist class) through increases in the productivity of labor. Need for increased productivity levels require revolutionary transformation in the productive forces, particularly technological revolution in the means of production. However, the extent to which the development of the productive forces through technological means can take place depends on specific contexts, conditioned by class-based relations of production in specific place and time. These contextual factors at times may pose contradictory outcomes in the development of productive forces. Unequal class based relations of production in the RNFS under these circumstances then become fetters in the development of the productive forces. Not only class relations, but class struggle – both capitalist and working class – also plays an important role in the development of the productive forces in the RNFS.

The development of the relations and forces of production in the RNFS is mediated by the state. A class based approach of the state -- in understanding its actions and policies for the RNFS -- will unravel the ways in which the state promotes capital accumulation by mediating the interests of the propertied class groups in rural areas and capitalists in urban areas through the rural nonagricultural sector. It will also contextualize the RNFS in recent times as essentially a neoliberal state driven project wherein the state intervenes as and when necessary to facilitate the process of capitalist accumulation (domestic or foreign) by exploitation of the poor workers outside the agricultural sector but within rural areas. Studies (Patnaik, 2001; Das, 2007) have pointed out that the state accommodates market led economic growth not only objectively but also ideologically. In the RNFS, this is done through so called 'inclusive' development policies for the workers and intervening in curbing active labor resistances through coercive or discursive means when necessary.

The capitalist development of RNFS is characterized by spatial and social unevenness. The geographical differentiation of economic activities and the relations of production associated with such activities leads to the spatial organization of social relations in the rural nonfarm sector. Such patterns then lead to uneven geographical development of capitalist relations in the rural nonagricultural sector, wherein some places and the classes that are concentrated in them becomes dominant in terms of control and power over the activities of the subordinated places and their respective classes.

Contradictions in the development of the productive forces and unequal class relations in the RNFS have implications for its development outcomes -- employment and wages -- with varying place-based outcomes. Uneven development in employment and wages have direct implications on rural incomes and social and physical wellbeing, rural labor relations in the RNFS and class based discriminations of social identities like gender, caste/race /ethnicity. The rural nonagricultural sector is not only differentiated in terms of class relations over space, but developmental outcomes of the RNFS are also socially stratified along the lines of non-class entities like gender and caste. Differentiation of non-class entities (gender/caste) in the RNFS is also conditioned by pre-existing class relations in specific place and time.

Thus, uneven class relations in the RNFS and their impact on the advancement or retardation of the productive forces, as mediated by policies of the state over time, space and scale, lead to uneven social and geographical development of the RNFS in developing countries. The next chapter will look at some of the macro-dimensions of the RNFS in developing countries, India and Kerala before we go into the empirical details of the RNFS through the case of the coir industry in Kerala in the following chapters.

Chapter IV: The Non-agriculture Sector in Less Developed Countries and India An Overview

4.1. Introduction:

The objective of this chapter is to provide an overview of the rural nonagricultural sector and assess its implications for economic development in rural areas. It examines whether the rural nonagricultural sector is significantly different from the agricultural sector where development implications are concerned. It deals with the non-agricultural sector at different scales -- global (developing countries)[50], national (India) and the provincial (Kerala) -- as and when statistical data permits.

Before, going into a detailed discussion of the various aspects, it is imperative to provide a brief note on the methodological caveats (as mentioned in the methodology section of the introductory chapter) of this chapter. The data from this chapter are compiled from various secondary sources for different scales. Although the intention of this chapter is to discuss data at various scales, the data obtained are not uniform in terms of time periods, units of measurement and across geographic spaces. There are many reasons cited for this in numerous studies (Lanjouw and Lanjouw, 2001; David and Bezemer, 2004; Davis et al, 2007, Carletto et al, 2007). First, the fact that rural nonagricultural activities are heterogeneous in nature means that various statistical documents do not employ a common definition. Second, the rural nonagricultural sector

[50] The development of the nonagricultural sector is discussed in the exiting literature largely in the context of the agricultural crisis and rural development in the developing countries. Therefore, only the case of the nonagricultural sector in developing countries will be discussed here.

has only featured in development studies since the late 1970s, so the process of data collection has expanded slowly in recent years and is yet to match the level of precision and breadth of data available for other established sectors[51] of the economy. Third, sometimes, it is difficult to clearly distinguish data on 'rural' nonagricultural sector from the data on nonagricultural sector in general; the boundaries (rural or urban or combined) in the content of RNFS are often not clearly specified. Such limitations in the existing data only allow general comparison of data for descriptive analysis with few explanatory estimates wherever possible. Wherever possible, I have used proxy variables for indirect estimation of the RNFS.

The chapter is divided into three main sections following the introduction and ends with a conclusion. The first section following the introduction will examine the trends and patterns – significance of the RNFS, employment, wages, and employment relations, income, gender and caste relations -- in the RNFS at the scale of the developing countries over time and among different countries. The second section will examine the status of RNFS in India, over time and among its various states. The third section will briefly examine the RNFS in the case of Kerala based on the availability of data for all categories. The concluding section will summarize the main points on the RNFS of each section in the chapter.

[51] As in agriculture or industry; or primary, secondary, tertiary etc.

4.2. The Rural Non-farm Sector in Developing Countries:

The nonagricultural sector is emerging as an important economic sector in rural areas of most developing countries of the world[52]. According to World Development Report, 1997, the RNFS contributed 14.3 percent of average per capita Gross National Product (GNP) in African region; 36.41 percent in Asian region; and 49.02 percent in Latin American region.[53] The rural nonfarm economy accounts for 30 percent of full time employment in Asia and Latin American countries, 20 percent in West Asia and North Africa and 8 percent in African countries (Table 4.1). Studies have pointed out that the increasing integration of rural of urban areas through production linkages raises the share of rural nonfarm employment by an additional 10-15 percent in the semi-urban semi-rural locations of nonfarm activities. The RNFS also includes secondary as well as seasonal or part time employment (which are not included in primary aggregate employment data on the RNFS and may be in the rural nonagricultural sector) of the entire rural workforce (Hazell and Hagblade, 1993; Wiggins and Hazell, 2011).

[52] The data discussed in this section is based compilation and citation in different studies of f the Rural Income Generation Activities (RIGA) database based on surveys of different developing countries under the RIGA project, conducted by the FAO, World Bank and American University.

[53] Calculated by author based on averages as indicated by World Development Report, 1997, compiled by Reardon, 1998.

Table 4.1. Share of Nonagricultural Activities in Rural Employment, 2007

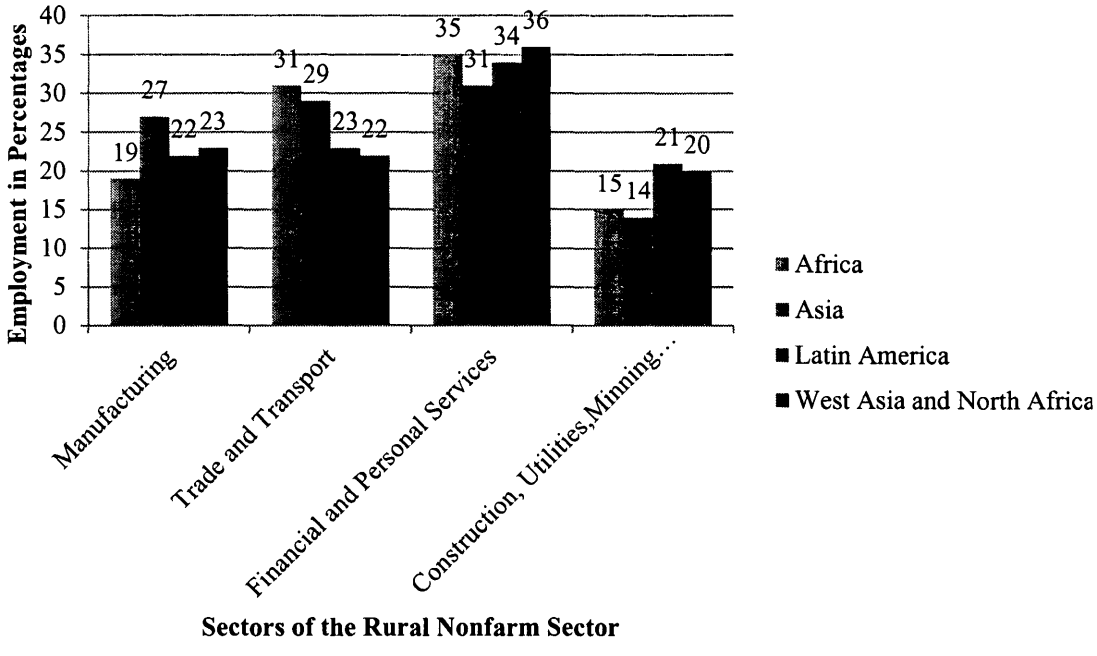
Countries	Nonfarm Share of Rural Workforce	Women's Share in Full time Rural Nonfarm Employment
Africa	9	39
Asia	24	24
Latin America	31	36
West Asia and North Africa	21	11

Source: Wiggins and Hazell, 2011.

Among the prominent sectors of the rural economy, the manufacturing sector at an average accounts for only 20-25 percent of rural employment in all the developing regions of the world, while all other sectors account for an average of 75-80 percent of the rural employment (Fig 4.1). In other words, employment in productive sectors (of goods and commodities) is limited in terms of total rural employment.[54] Although the data indicates a smaller share of rural employment in the manufacturing sector, which is true to some extent particularly due to the decline of the sector in general in most developing countries after the 1990s; it has to be mentioned that a significant share of the rural workforce engaged in manufacturing activities are part of an informal economy. Data from different studies indicate for instance, that government and private sector opportunities in rural areas in developing countries like Egypt offers 45 percent of the rural nonfarm employment (Adams and He, 1999) which is considerably high; but only 25 and 20 percent in South Asian countries like Pakistan and India, respectively (Adams, 2003; Fisher et al, 1997).

[54] Aggregate data largely do not account for the informal sector, the data for which is not available at disaggregated levels across all countries and in comparable time periods.

Fig. 4.1. Percentage Share of Nonfarm Employment in Rural Economic Sectors, 2007

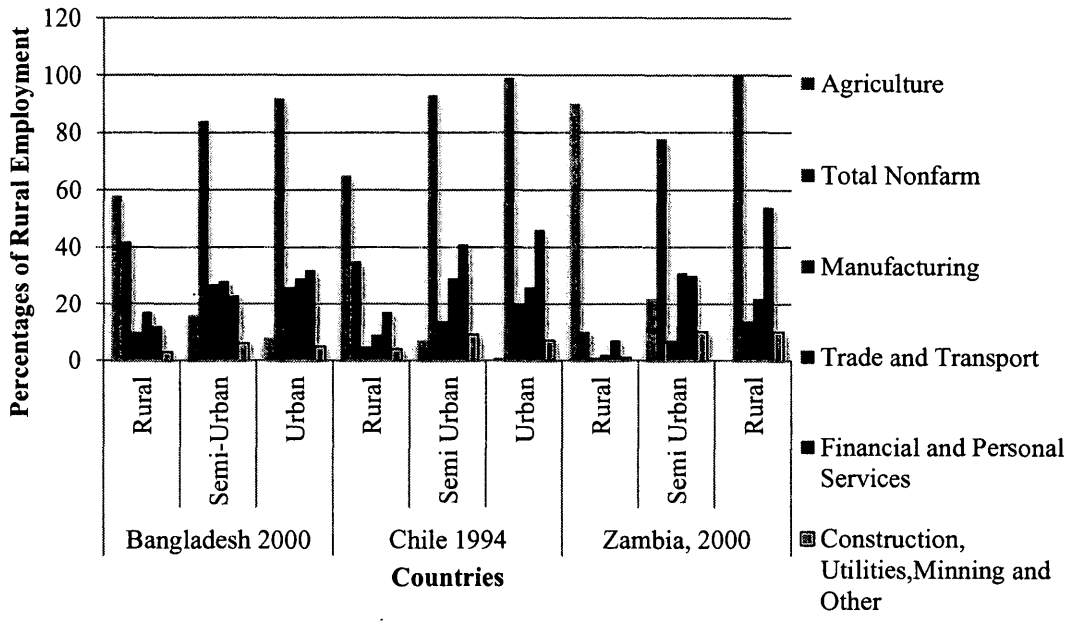


Source: Calculated by author on data compiled on 31 Population Censuses as Summarized by Hazell et al, 2007. Country data is weighted by size of total primary workforce.

The rural nonagricultural sector is also connected to the urban economy in terms of scale of activities as well as employment. Rural industries and services are often connected to urban processes through product and market linkages and due to better access to infrastructural processes and part of the rural population is employed in sectors of nonagricultural activities that are located in rural towns and urban peripheries. Since comparable data is not available for all countries for the same units, three developing

countries[55] from the three developing regions of the world have been selected to indicate the geographical spread of the RNFS (Fig 4.2).

Fig 4.2 Spatiality of Rural Nonfarm Employment in Three Selected Countries



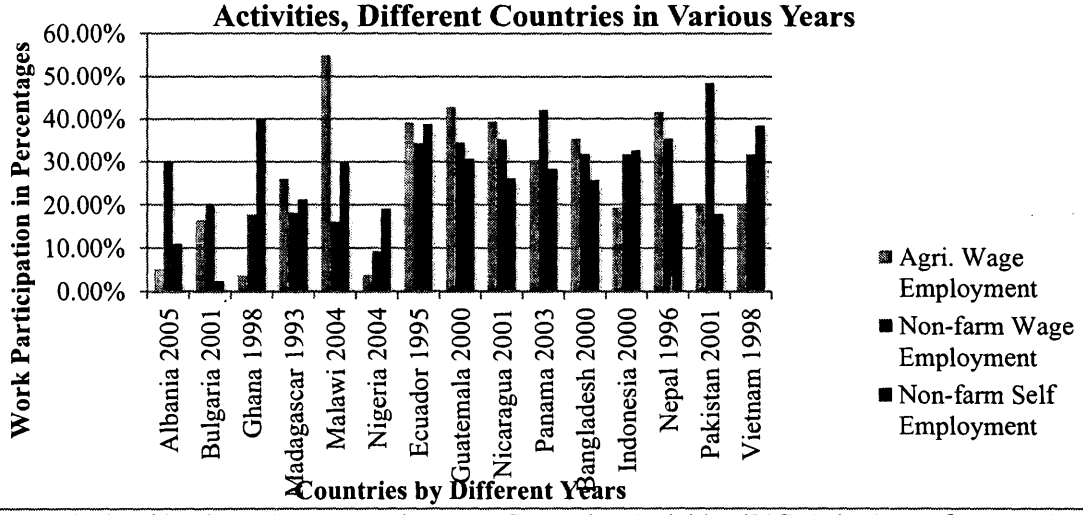
Source: Calculated by author on data compiled by Wiggins and Hazell (2011) from different sources.

As seen in the diagram above, agriculture is the most dominant sector of employment in rural areas compared to the rural nonfarm sector. However, the share of rural nonfarm employment increases in semi urban semi rural locations. This as various studies (cited below) point out is because of the fact that certain rural nonagricultural activities, particularly manufacturing, finance and construction activities is linked with the urban

[55] These three countries are representative of relatively significant shares of rural employment in the nonfarm sector in the three developing regions of Asia, Latin American and Africa .

economy. The semi urban and urban location of such activities is in most cases an extension of the RNFS outside of rural areas. In case of the manufacturing sector, the household based cottage and traditional sector of rural industries[56] are located in the rural areas, whereas factory based manufacturing processes, along with trade and other activities are located closer to the urban areas due to the integration of rural industries with urban industrial processes (Lanjouw and Lanjouw, 2001; Haggblade et al, 2007; Wiggins and Hazell, 2011).

Fig. 4.3. Work Participation in Rural Income Generating Activities, Different Countries in Various Years



Source: Calculated by the author on Rural Income Generation Activities (RIGA) database of surveys based on different countries, World Bank as compiled by Davis et al (2007)

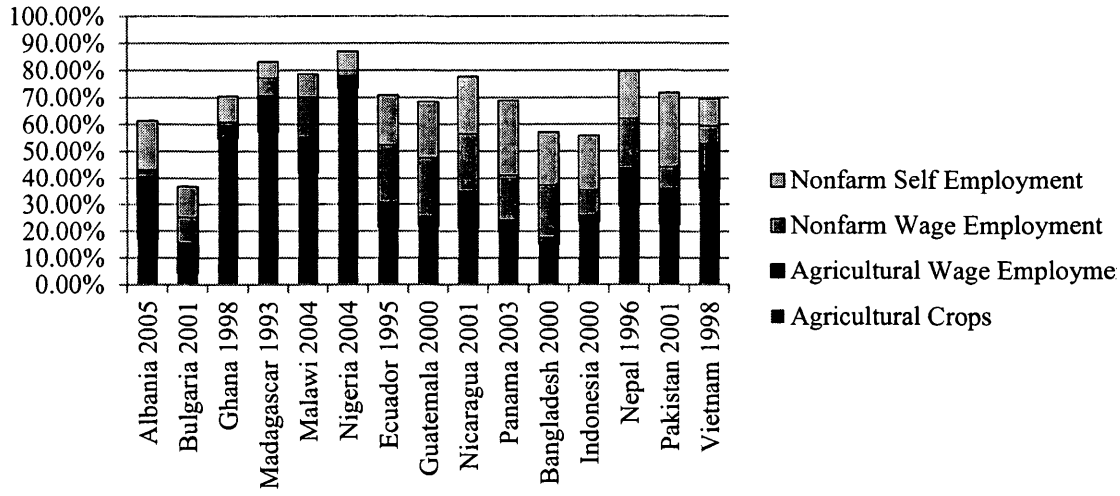
In most developing countries, a significant part of the rural workforce is employed as wage laborers in the RNFS other than rural nonagricultural self-employment. Average work participation in rural nonfarm wage employment is higher

[56] Most of these are generally informal production processes as the existing literature suggests. However, such conclusive estimations is not possible due to paucity of data on rural informal employment at aggregate levels for these countries.

(110 percent) than self-employment (90 percent) as seen in Fig 4.3. The rate of transfers to the RNFS from other sectors of the rural as well as urban economy has also been high in many countries (between 30 to 80 percent) except for Malawi (6.2 percent) (Davies et al, 2007). However, agricultural employment is still a dominant part of rural employment. In all countries except one (Indonesia), about two thirds or more of rural households participate in rural nonagricultural wage employment and in 11 countries, work participation in agricultural crop and livestock activities accounts for more than 80 percent of the rural workforce; while nonagricultural work participation accounts for less than 30 percent of the total work participation in rural areas (Fig 4.3, RIGA database, World Bank as cited in Davies et al, 2007).

Rural nonagricultural activities contribute significantly to rural household incomes in most countries. However, income from agricultural cultivation (crops) contributes a substantial part of rural household income.

Fig 4.4. Share of Rural NonFarm Activities in Total Rural Household Income for Various Countries in Various Years



Source: RIGA Database World Bank compiled by Davis at el, 2007.

As seen in Fig 4.4, rural households in countries where a higher share of household incomes is generated from agricultural crop activities diversify less into rural nonagricultural activities. The diversification rate into multiple sources of income is lower for those rural households where farm incomes are relatively higher (less than 50 percent of diversification for households where farm incomes are higher except for Malawi) as seen in Table 4.2. In other words, cultivating farm households in rural areas are not pressed to diversify from nonfarm sources of income as the literature suggests (Reardon et al, 1998; Davies, 2003).

Table 4.2. Percent of Rural Households with Diversified and Specialized Income Generating Activities

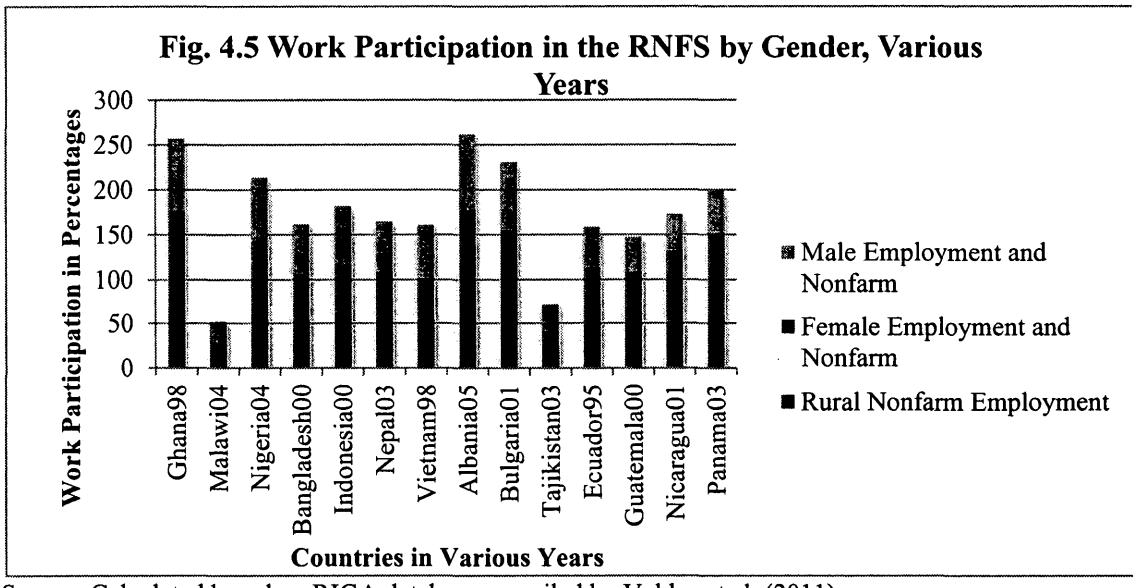
		Principal Household Income Source >=75 percent of Total Income				
Countries	**Diversified Sources of Income**	**Agricultural Wage Employment**	**Nonagricultural Wage Employment**	**Nonagricultural Self Employment**	**Others**	**Farm Income**
Albania 2005	**54.80%**	1.40%	9.10%	5.00%	0.50%	19.40%
Bulgaria 2001	**38.40%**	4.80%	5.50%	1.10%	0.20%	3.60%
Ghana 1998	23.90%	0.60%	6.10%	15.40%	0.20%	**50.30%**
Madagascar 1993	30.60%	1.30%	2.80%	4.00%	0.40%	**59.40%**
Malawi 2004	39.40%	5.60%	5.70%	5.00%	0.00%	41.80%
Nigeria 2004	14.70%	1.00%	5.50%	7.80%	0.20%	**69.90%**
Ecuador 1995	**45.60%**	13.20%	11.60%	8.90%	1.00%	17.40%
Guatemala 2000	**51.50%**	10.90%	13.60%	5.90%	0.20%	11.70%
Nicaragua 2001	**43.20%**	12.40%	14.50%	6.50%	0.40%	22.40%
Panama 2003	**41.00%**	10.40%	20.20%	7.60%	0.20%	13.30%
Bangladesh 2003	**47.40%**	10.90%	12.20%	10.30%	2.00%	11.70%
Indonesia 2000	**41.50%**	5.90%	13.90%	10.40%	1.10%	15.70%
Nepal 1996	**50.70%**	7.90%	7.10%	4.30%	0.20%	26.30%

Source: Davis et al, 2007

On the other hand, the share of income from RNFS is relatively high for households that earn a smaller share of income from agricultural wage employment. As seen in Fig. 4.4 the share of agricultural wage employment is much lower compared to other sources of income. This indicates as the literature suggests (Vaidyanathan, 1987; Abraham, 2009) that with fall of agricultural wage incomes in most countries, the rural workforce has diversified into nonagricultural activities under conditions of distress (Table 4.2). Within the RNFS, household incomes from nonagricultural wage

employment are higher than income from rural nonagricultural self-employment, which imply that the nature of rural nonagricultural activities in most countries is that of the low return, low-income category. Thus, poorer agricultural households either diversify their income opportunities under conditions of distress or household diversification into multiple sources of income takes place because of the fact that income generated from nonagricultural activities is limited in scope.

The RNFS is also an important source of employment for the female workforce. Female workers constitute for more than a quarter of the full time rural nonfarm employment in developing countries (Table 4.1 above). However, male workers are the dominant work force in the RNFS across different developing countries. Fig 4.5 below, indicates the increase of female work participation in the RNFS compared to male workers in 14 developing countries in Asia, Africa and Latin America. Such trends correspond to the arguments made in certain literature that the RNFS has the potential of providing increasing scope of employment for female workers in rural workers (World Bank and DFID Various Reports and Studies). However, overall, male workers have relatively steady employment in the RNFS compared to female workers across different countries in different time periods.

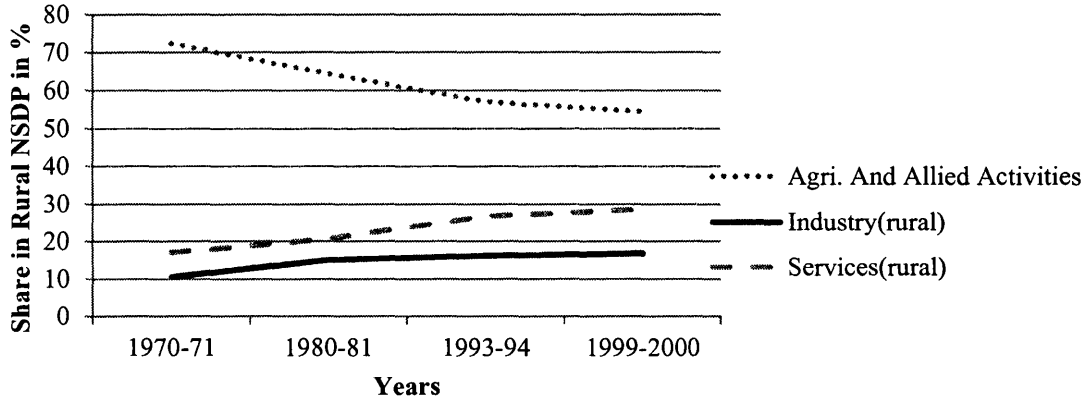


Source: Calculated based on RIGA database compiled by Valdez et al, (2011)

4.3. The Rural Non-farm Sector in India:

The rural nonagricultural sector is an emerging economic sector and a recent phenomenon in the Indian economy. A slow but growing RNFS has been contributing to India's NSDP with the decline of the agricultural sector in recent years. However, contribution of agriculture to the national income is still higher than that of the rural nonagricultural sector for India as a whole. As seen from Fig. 4.6, within the RNFS --as is similar in the case of many developing countries -- the rural industrial or manufacturing sector, which is the most prominent nonfarm activity in rural areas, is growing at a slower pace compared to the service sector in rural areas. Industrial activities in the RNFS exhibit a slow growth rate compared to the consumer based activities as evident from the rise of the NSDP from service sector activities (Fig. 4.8) below.

Fig. 4.6. Sectoral Distribution of Rural NSDP, 1970-2000 in India



Source: Calculated from data compiled by G.K. Chadha, 2003 cited in Pal and Biswas ,2011

There is some level of economic diversification *within* the RNFS in India, as income from one source does not meet the subsistence level of income for rural households. A higher index of diversification[57] (0.905) within the RNFS (Table 4.3 below) suggests that the rural population is not necessarily concentrated in one dominant form of nonfarm activity but earn their livelihoods from various sources of income. Lower income from the RNFS may be due to the irregularity in the nature of employment of most rural nonagricultural activities and low wages due to the informality of employment in this sector. On the other hand, the lower index of diversification in rural activities -- as a whole (farm and nonfarm combined) -- indicate the continued importance of the agricultural sector in rural areas in India despite the gradual growth in the RNFS. The agricultural sector provides a fall back option -- despite irregularity of employment or low wages -- under circumstances when employment and income

[57] This diversfication index has been calculated by Pal (1988) based on Theil's Entropy Index (Pal and Biswas, 2011).

opportunities from RNFS is constrained due to market volatility or structural change as part of macro-economic reforms (Pal and Biswas, 2011).

Table 4.3 Sectoral Distribution of Rural NSDP and Index of Economic Diversification in Percentage in India, 1970-2000

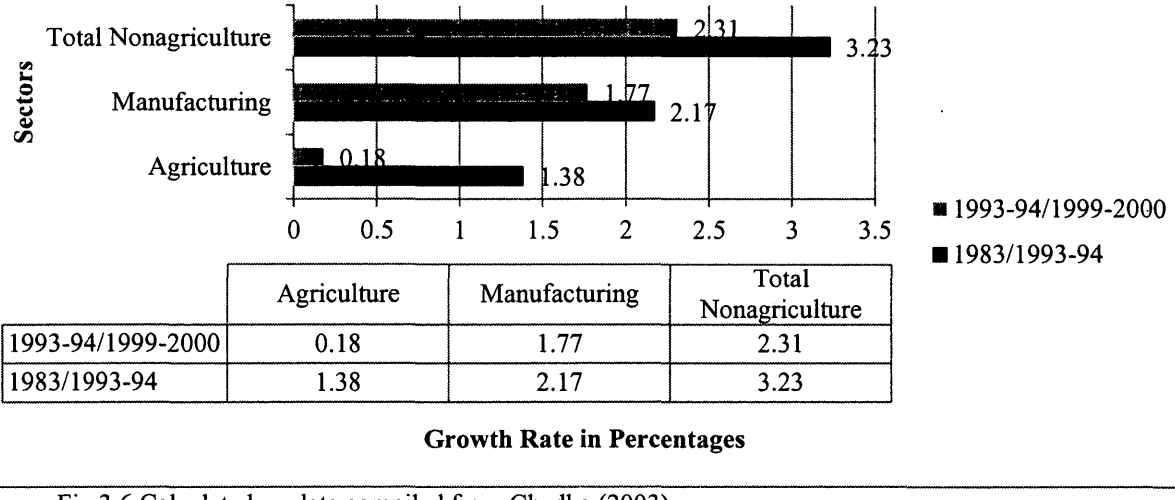
Sectors	Contribution to NSDP in Various Years			
	1970-71	**1980-81**	**1993-94**	**1999-2000**
Agriculture and Allied Activities	72.37	64.36	57	54.41
NonFarm	6.36	7.27	9.59	12.5
Total	27.63	35.64	43	45.59
Diversification Index (among rural activities including farm and nonfarm)	**0.481**	**0.575**	**0.672**	**0.693**
Diversification Index (within RNFS)	**0.853**	**0.859**	**0.913**	**0.905**

Source: G.K. Chadha (2003) cited in Pal and Biswas (2011)

a) Employment: The existing literature indicates a gradual increase of rural nonfarm employment against farm employment over the last three decades in India. According to recent statistics of the Ministry of Labor and Employment, Labor Bureau statistics for 2011-12, the unemployment rate per 1000 person for the economically active population group (15 to 59 years) in India was 33 percent, with 29 percent unemployment rate in rural areas (Labor Bureau, GOI, 2011-12). The compound annual growth rates of agricultural employment grew by only 1.38 percent between 1983/1993-94 declining further with only 0.18 percent growth rate between 1993-94/1999-2000. Employment in the nonagricultural sector (in general) also declined as well -- 2.31

percent compound growth rate in the post reform period compared to 3.23 percent in the pre reform period (Fig 4.7).

Fig 4.7 Annual Compound Growth Rate of Rural Agricultural and Nonagricultural Employment in India, 1983/1993-94 to 1993-94/1999-2000



	Agriculture	Manufacturing	Total Nonagriculture
1993-94/1999-2000	0.18	1.77	2.31
1983/1993-94	1.38	2.17	3.23

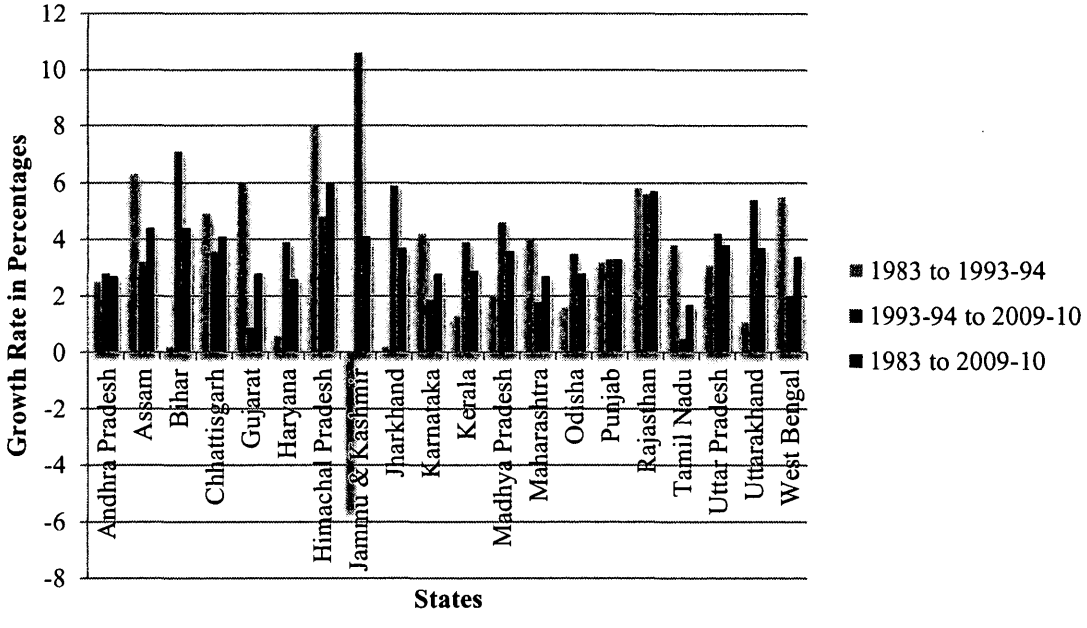
Growth Rate in Percentages

Source: Fig 3.6 Calculated on data compiled from Chadha (2003)

At a disaggregated level however (contrary to the nonfarm sector in general), the compound annual growth rate of nonfarm sector in rural employment has increased for most major and minor states in India (Andhra Pradesh, Haryana, Bihar, Jammu and Kashmir, Kerala, Punjab, Madhya Pradesh, Orissa, Rajasthan) between the pre and post reform period (Fig 4.8). A few states have witnessed declining employment in the nonagricultural sector (Assam, Tamil Nadu, Karnataka, West Bengal among the major states). Overall, there has been a moderate rate of increase in the growth of employment in the nonagricultural sector (up to 3 percent on an average between the pre and post reform period) in most states of India. On the other hand, there has been a mixed pattern

in increment/decrement of workers in the overall nonagricultural sector in the Indian states. Other than exceptional cases as in Himachal Pradesh and Karnataka that saw a decrement of workers (negative growth) in the post reform period, most major states recorded an increment of agricultural workers between pre and post reform periods. States like Kerala, Assam, Haryana and Uttar Pradesh witnessed over 100 percent per 1000 worker incremental rise in the nonagricultural sector (Chadha, 2003).

Fig 4.8 Compound Growth Rate of Non-farm Sector in Rural Employment in States of India by Workers, 1983-2010

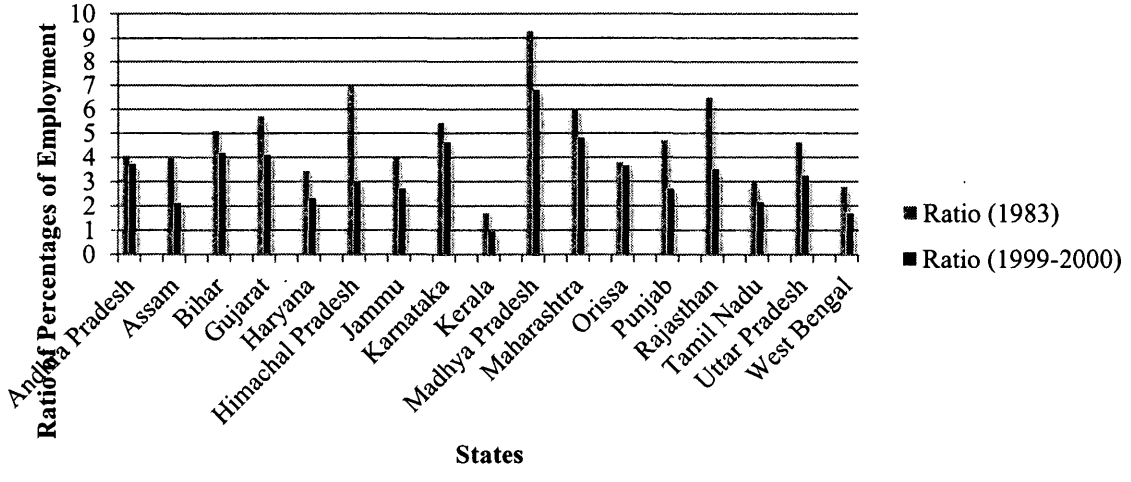


Source: Fig 3.7 Calculated based on data complied from Kumar, et al (2011)

The ratio of distribution of workers between the rural agricultural and nonagricultural sector shows that agricultural employment is still significant in many Indian states (Fig 4.9). As seen from the data, the ratio of agricultural to nonagricultural

employment (in terms of distribution of workers) has been high for most states in the pre and post reform periods except for Kerala and West Bengal where the nonagricultural sector has a higher proportion of workers (lower ratio of agricultural to nonagricultural workers). A higher ratio of agricultural to nonagricultural workers suggests the dominance of agrarian employment despite the growth of the nonagricultural sector in recent years.

Fig 4.9 Ratio of the Sectoral Distribution of Workers Between Agricultural and Rural Non-agricultural Employment in Major States of India, 1983 and 1999-2000

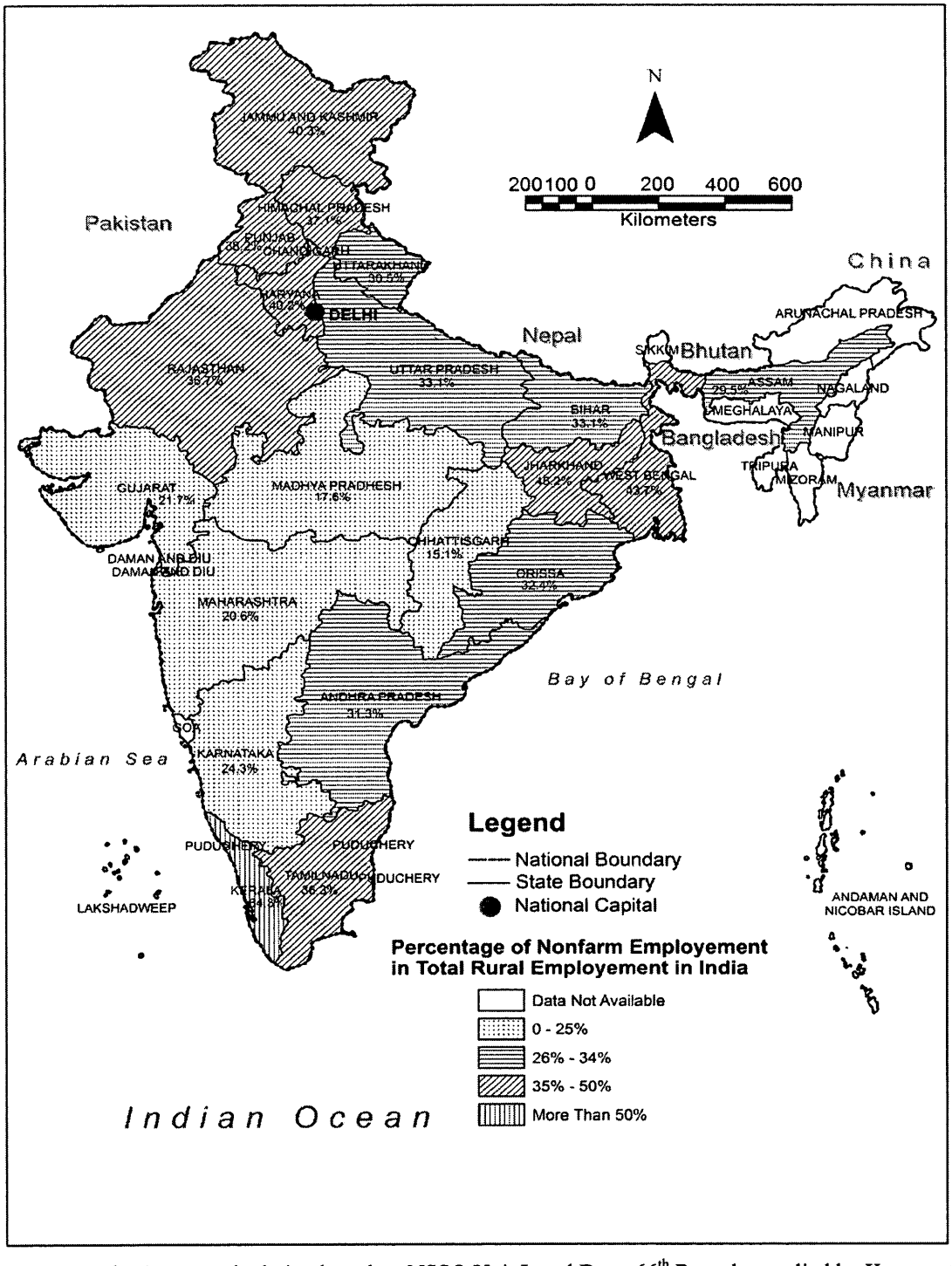


Source: Based on author's own calculated data compiled from 1. Govt. of India, SARVEKSHANA, Vol. XIV, No 1 & 2 Oct-Dec. 1990. 2. 1999-00 data are extracted from household level data on CD-ROM supplied by NSSO, Govt. of India.

The geographical distribution of the rural nonagricultural employment in India is shown in Map 4.1. Kerala among all other India states has the highest incidence of rural nonagricultural employment (64.3 percent) of more than 50 percent of the total rural nonagricultural employment for 2009-10 (Kumar et al, 2011). An early

commercialization of Kerala's agricultural sector in the colonial era is one of the main reasons behind higher incidences of RNFE in the state historically. However, recent growth of RNFE has been the outcome of distressed migration of rural workers from the farm to the nonfarm sector as in the case of many other states in India. In majority of the states, nonfarm employment accounted for one third of the total rural employment in 2010. Besides Kerala, the non-farm sector contributed about two-fifths to the rural employment in West Bengal (43.7%), Jharkhand (45.2%), Jammu & Kashmir (40.3%), Haryana (40.2%), Punjab (38.2%), Rajasthan (36.2%), Tamil Nadu (36.3%), and Himachal Pradesh (37.1%) in 2009-10 (Kumar et al, 2011: 362-63).

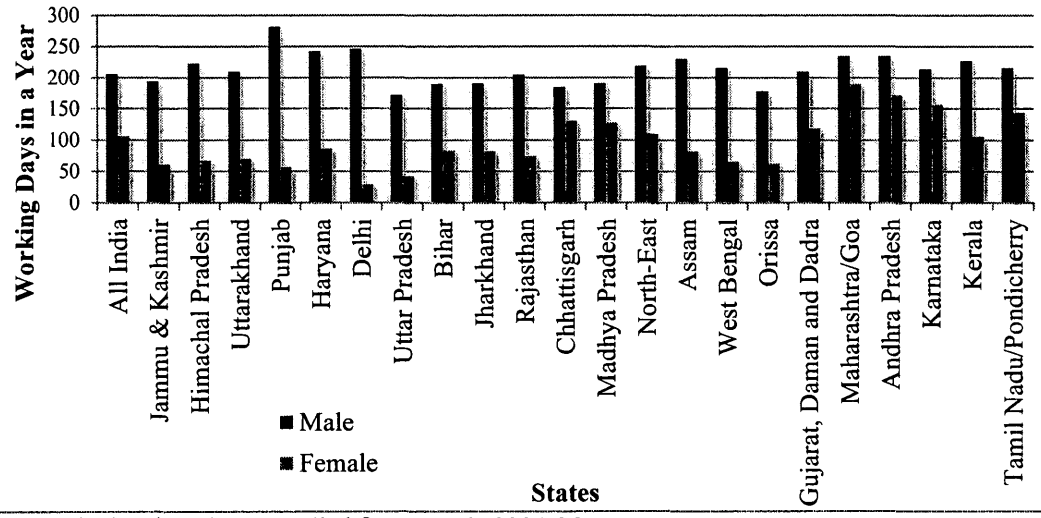
Map 4.1. Share of Non-farm Sector in Total Rural Employment, 2009-10



(Source: Author's own calculation based on NSSO Unit Level Data, 66th Round complied by Kumar et al, 2008

The nature of rural nonfarm employment is irregular and part time in nature. The average number of days of rural employment of the economically active age group work, amounts to a maximum of 230 days in a year for a male worker and only 119 days for a female worker despite the fact the female workers constitute a major share in the rural nonagricultural work force (IHDS, 2004-05). State averages of working days in a year do not exceed more than 250 days for male except in Punjab, while female workers on an average in most states find employment for less than 200 days in a year (Fig 4.10). The average number of days employed understood in terms of the amount of wages earned during these days do not paint a bright picture for the nonagricultural sector in India despite the possibility of local variations in these trends.

Fig 4.10 Statewise Number of Working Days in a Year for Rural Employed Persons, 2004-05



Source: Calculated on data compiled from IHDS, 2004-05

b) Wages: The existing literature in India states that wage opportunities relatively better in the RNFS than in agriculture in rural areas for both male and female workers (Srivastava, 1999; Lerche, 1999). While this is true in case of both male and female workers as can be seen from Table 4.4 below, the average daily wage rates are limited for both sectors –agricultural and nonagricultural – in the rural economy. Other than wages being generally low in both sectors, average wage rates in the RNFS is not markedly higher than the agricultural sector for most states in India except for a few (Kerala, Himachal Pradesh and Punjab).

The disparity of wages between the agricultural and nonagricultural sectors in rural areas is relatively yet slightly higher for male workers than female. This indicates, that wage rates do not vary significantly for female workers in both sectors even when the RNFS offers relatively better opportunities in terms of wages. However, male workers are able to negotiate for slightly higher wages in the RNFS compared to that of female workers, exhibiting general gender disparity in wages as in the case of agriculture. However, aggregate statistics are based on formal estimates of average daily wage rates based on minimum wage levels fixed at constant prices and do not reflect specific place based wage differentials in different states in India or variation of wages over time. More over, this data also do not reflect the wage differentials between factory and household based workers or skilled and unskilled workers (close to 150 INR for skilled and less than

100 INR for unskilled on an average in the nonagricultural sector[58]). Wages at household level are more often based on 'agreed' or informal arrangements instead of following a fixed minimum wage rate.

[58] www.indiatstat.com, 2008-09

Table 4.4 State-wise Daily Income and for Wage and Salary Workers in Rural Areas, 2004-05

	Daily Wages for Laborers in Rural Areas (In Rs.)					
	Agricultural		Non-agricultural			
	Male	Female	Male	Female	Ratio Male Wages between Agriculture and RNFS	Ratio Female Wages between Agriculture and RNFS
All States	50	33	76	43	**0.66**	**0.77**
Jammu & Kashmir	99	NA	115	62	**0.86**	
Himachal Pradesh	78	77	85	76	**0.92**	**1.01**
Punjab	75	52	103	73	**0.73**	**0.71**
Haryana	82	63	94	71	**0.87**	**0.89**
Uttar Pradesh	45	32	63	40	**0.71**	**0.80**
Bihar	51	41	76	53	**0.67**	**0.77**
Rajasthan	60	41	72	46	**0.83**	**0.89**
Madhya	37	31	54	35	**0.69**	**0.89**
Assam	56	44	70	47	**0.80**	**0.94**
West Bengal	48	45	66	33	**0.73**	**1.36**
Orissa	39	29	57	35	**0.68**	**0.83**
Gujarat	41	37	72	52	**0.57**	**0.71**
Maharashtra/Goa	48	28	79	39	**0.61**	**0.72**
Andhra Pradesh	51	34	84	43	**0.61**	**0.79**
Karnataka	47	28	92	45	**0.51**	**0.62**
Kerala	123	88	149	85	**0.83**	**1.04**
Tamil Nadu	68	34	89	38	**0.76**	**0.89**

Source: Calculated on data compiled from IHDS Data, 2004-05

The disparity between urban and rural wages for casual and regular wage labor in the major states of India reflects that overall disparity between the formal and informal

sector of the RNFS in India. In most states in India, the disparity between regular and casual wage levels are significantly high in rural areas (lower ratio of casual to regular wages). In fact, informal employment is based on the assumption that wage levels will be lower for casual workers to regular workers. Ratio of casual to regular wages (0.37) in rural areas and ratio of rural casual wages to urban regular wages (0.25) in India for the year 2004-5 show a high level of disparity between formal and informal wages in the rural nonagricultural sector (Karan and Selvaraaj, 2008, ILO).

c) Rural Nonagricultural Household Income: One way to access whether rise in employment and wages in the nonagricultural sector would raise average standard of living in rural areas in comparison to the agricultural sector is to examine levels of income and expenditure in rural households. Rural nonagricultural households diversify into multiple sources of income for subsistence, which indicate that income from one source is limited.[59] Table 4.5 indicates that a majority of households earn a significant part of the household income from the agricultural sector at the all India level, although income from agriculture has slightly declined in the post reform period.

[59] Data on income and expenditure at the national level in India have been published by the National Sample Survey Organization (NSSO) based on its survey of sources of household income and expenditure in the course of its 55th quinquennial (5 years) survey.

Table 4.5 Trends in Proportions of per 1000 households Reporting Receipt of Income from Different Sources for Each Household Type in Rural India, 1999-2000

	Years	Cultivation	Fishing and other agri-enterprises	Wage/ salaried employment (combined)	Non-agri-enterprises	Remit-tances
All Household Types (Rural)	87-88	624	197	567	181	32
	93-94	605	195	565	183	79
	99-00	571	145	558	184	86
Self employed in Agriculture	87-88	967	284	277	94	95
	93-94	958	271	248	98	90
	99-00	966	221	253	94	92
Self-employed in non-agriculture	87-88	415	161	262	849	45
	93-94	385	151	256	883	43
	99-00	370	104	231	903	42
Agricultural labor	87-88	444	142	927	80	36
	93-94	424	143	951	66	39
	99-00	401	104	924	58	35

Source: NSSO, 55th Round, 1999-2000

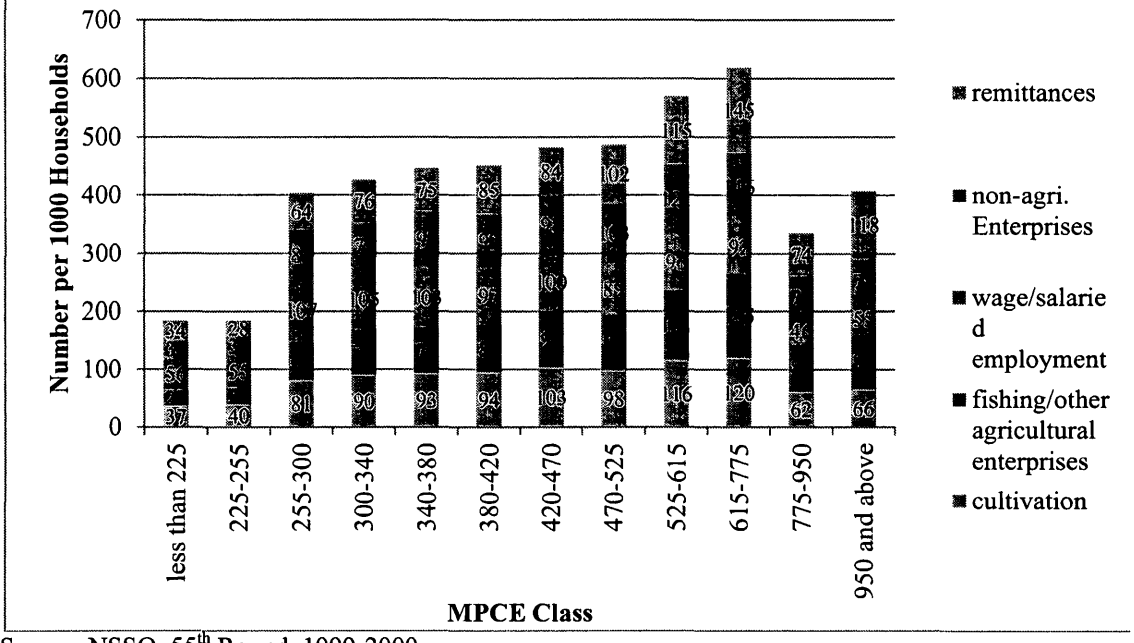
A majority of the households also earn their income from wage or salaried labor in both the farm and nonfarm sector.[60] Income earned from nonagricultural enterprises have gone up, although moderately, in recent years. Remittances also provide a significant source of income to rural households and have increased in recent years. The rate of diversification of household income from nonagricultural enterprises is lower for cultivating households, but higher for self-employed nonagricultural households. Remittances play an important role for agricultural household income compared to the RNFS and very low for

[60] This data do not distinguish wage and salaried labor between the agricultural and nonagricultural sector in rural areas.

households engaged in wage labor. On the other hand, rural households that earn a significant source of their household income from agricultural wage labor diversify less into nonagricultural enterprise, but may earn a larger share of their incomes from wage labor in RNFS (inconclusive due to combined data for agriculture and RNFS for wage labor). One visible aspect is this data is that, even in those households, which derive their income from self-employment in the RNFS also earn their income from regular wage salary. This suggests that income from self-employment in the RNFS does not ensure high returns and because of income from one source is not enough the rural workforce has to diversify into multiple sources of income for a subsistence wage.

The limited nature of household income earned from the RNFS is also reflected in the nature of low household expenditures for nonagricultural households in general. Household expenditure by Monthly Per Capital Expenditure (MPCE) classes as shown in Fig 4.11 below, shows that the highest number of nonagricultural entrepreneurial households that had an MPCE of Rs. 615-775 in 1999-2000 was only 116 or 11.6 percent per 1000 households. This MPCE class (Rs. 615-775) also consisted largely of cultivating household and agricultural and nonagricultural entrepreneurial households. On the other hand, the highest number of households reporting MPCE of Rs. 950 dollars and above, were those, which earned additional income from remittances. Wage labor households have even a lower monthly per capita income. Agricultural households that are engaged in cultivation report relatively higher MPCE in most of the upper MPCE classes.

Fig 4.11 Number per 1000 Households Reporting Reciept of Income from Various Sources by MPCE Class, 1999-2000



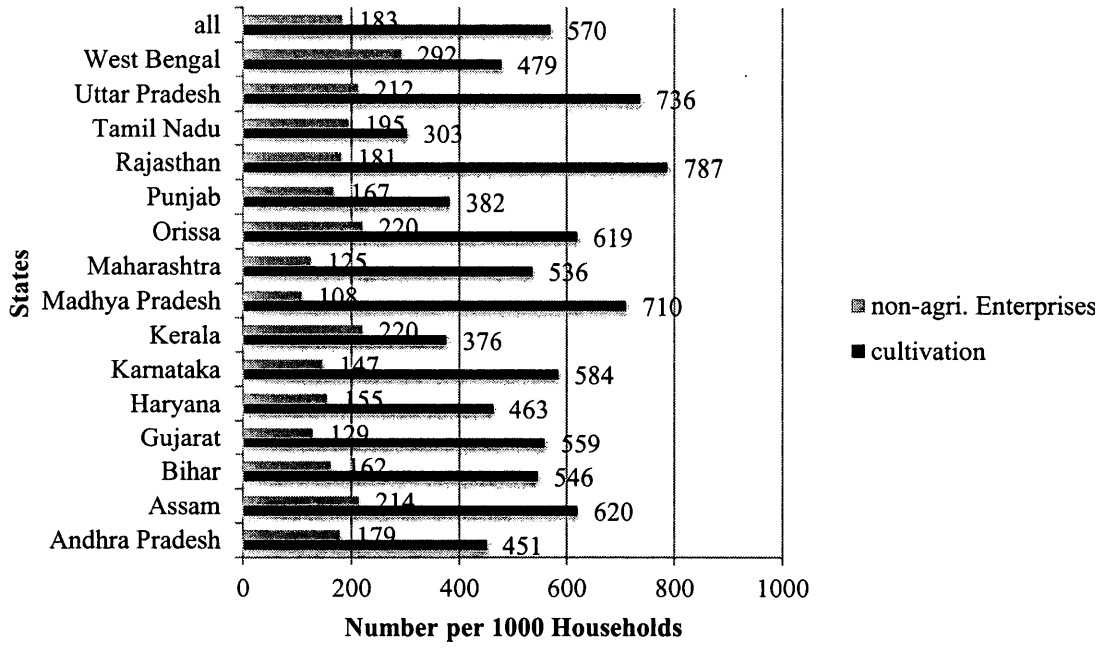
Source: NSSO, 55th Round, 1999-2000

The emerging trends based on Table 4.5 and Fig. 4.11 indicate two important trends. First, nonagricultural income is higher in rural areas for only those households that could diversify their income in entrepreneurial activities (despite the size, scale and nature of such units). Second, also most houses that reported income sources from cultivation (on self account) may be able to diversify their income into nonagricultural sources. Such patterns then agree with the claims made in the existing literature that surplus agricultural capital is diversified into nonagricultural activities in rural areas. But the extent of this diversification is still very small in magnitude (with lesser number of households falling into the highest income brackets). Also the degree of property ownership (in terms of landholding) of rural households reflects in the rate of

diversification into RNFS in rural areas. Income from nonagricultural enterprises is highest for households (790 per 1000 households) that have smaller land holdings (less than 0.01 acres), whereas households that have larger landholdings (6 acres or more) are not necessarily pressed to diversify their income or employment opportunities (NSS0, 55th round, 1999-2000). Their income from land is sufficient for their subsistence, whereas for small landholders, diversification is more distress driven.

Despite, the growth of the RNFS, agricultural is still the dominant source of household income in most states of India, indicating – as the literature suggests – that the RNFS (particularly in regards to low return activities) is largely a residual economic category (Fig 4.12).

Fig 4.12 Number per 1000 Households Reporting Receipt of Income from Farm and Non-farm Sources for Major States of India, 1999-2000

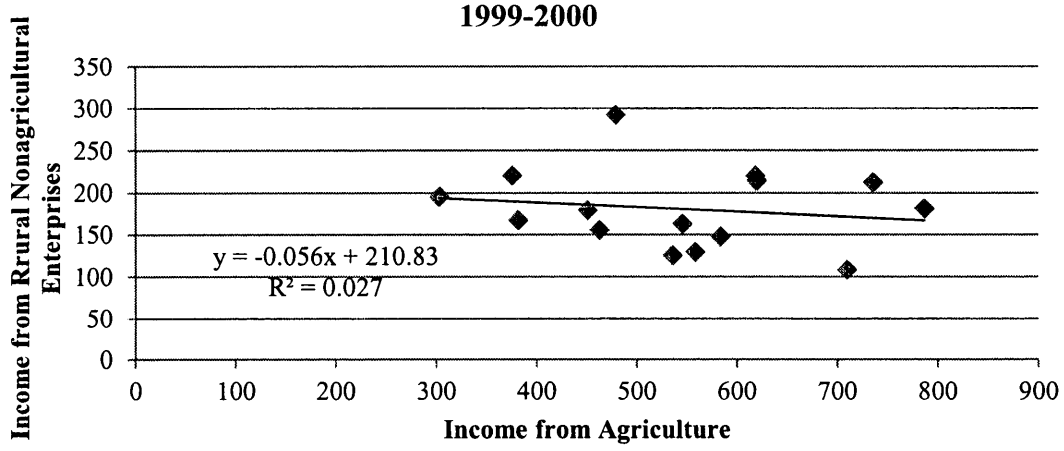


Source: NSSO, 55th Round, 1999-2000

While there is some association between farm and nonfarm rural incomes, correlation between the two categories for state level trends reflect the fact that most agricultural cultivating households diversify less in nonagricultural activities/enterprises in rural areas as seen from the negative correlation analysis in Fig 4.13. This trend is contrary to the arguments made in some of the existing literature that diversification in the RNFS in India is often driven by surplus income in agriculture. While this may be true in certain contexts in certain states, the diagram below corresponds rather to the argument that diversification into RNFS (wage labor or self employment) is largely conditioned by distress circumstances for poorer households in rural areas. The

correlation shows that a decline in farm income leads to diversification into nonfarm income opportunities in rural areas.

Fig 4.13 Correlation between Income from Agricultural and Non-agricultural Sectors in Rural Areas in Major Indian States, 1999-2000

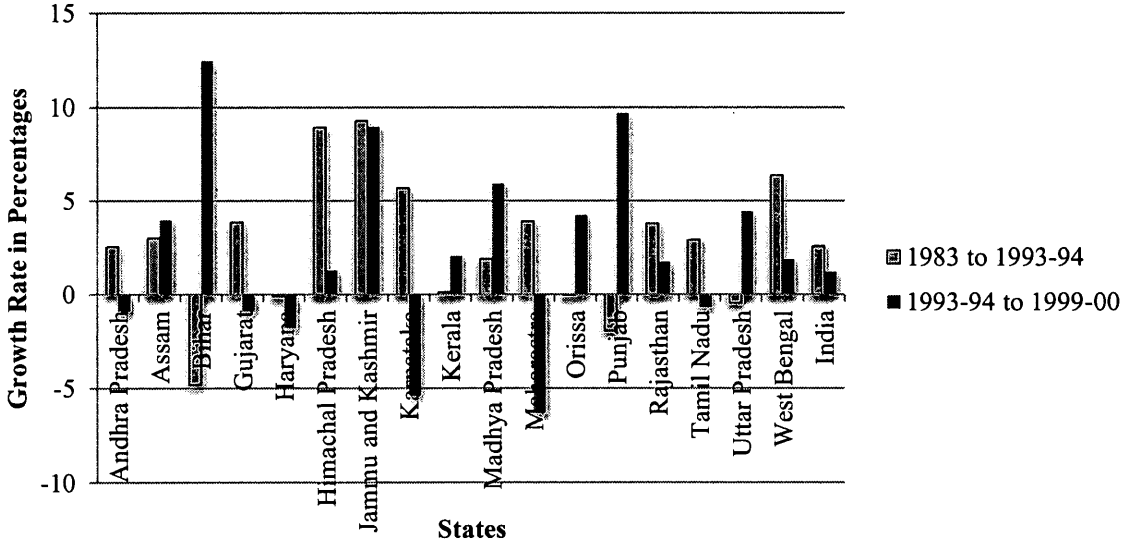


Source: Calculated by author on data compiled from NSSO, 55th Round, 1999-2000

d) Gender/Caste Relations: The existing literature on nonagricultural sector in general points out that the RNFS has been able to offer relatively better scope of employment and income negotiations for women and other marginal groups than in the agricultural sector in rural areas, particularly in India (Kapadia, 1999; Wilson, 1999). Despite the increase in the work participation of female workers in the rural nonagricultural sector in most developing countries (as mentioned above), employment of female workers in the nonagricultural sector in the post reform period in Indian in general and the RNFS in particular has been considerably low. Growth rates of female

employment in the nonagricultural sector have reduced in general in India as a whole between the pre-reform and post reform period (Fig 4.14). Out of the 16 major states on India 8 states showed an increase in the growth rate of female workers in the nonagricultural sector in general in the post reform period.

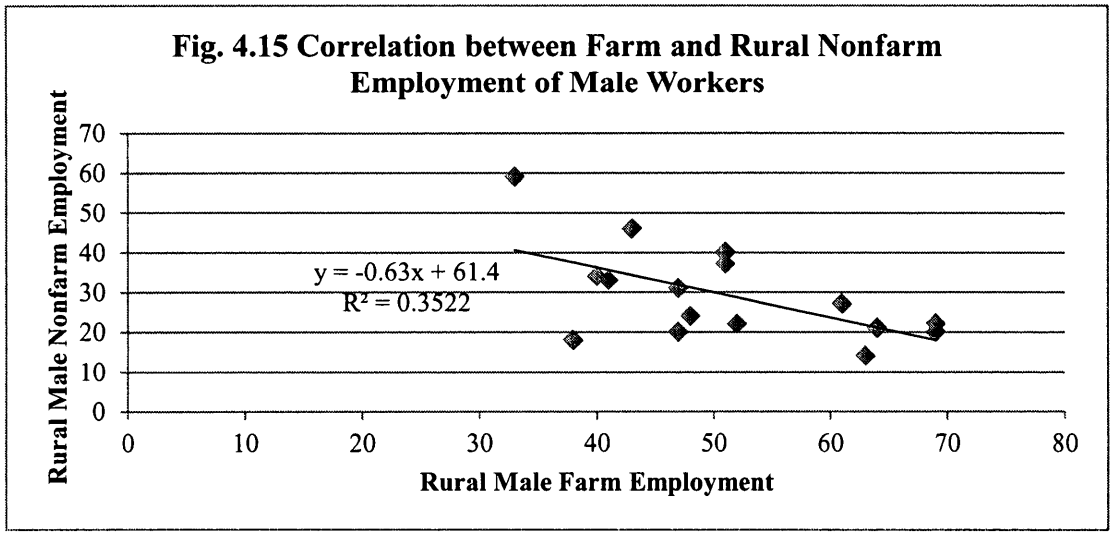
Fig 4.14 Growth Rates of Female Employment in the Nonagricultural Sectors in the Major States in India, 1983/1999-2000

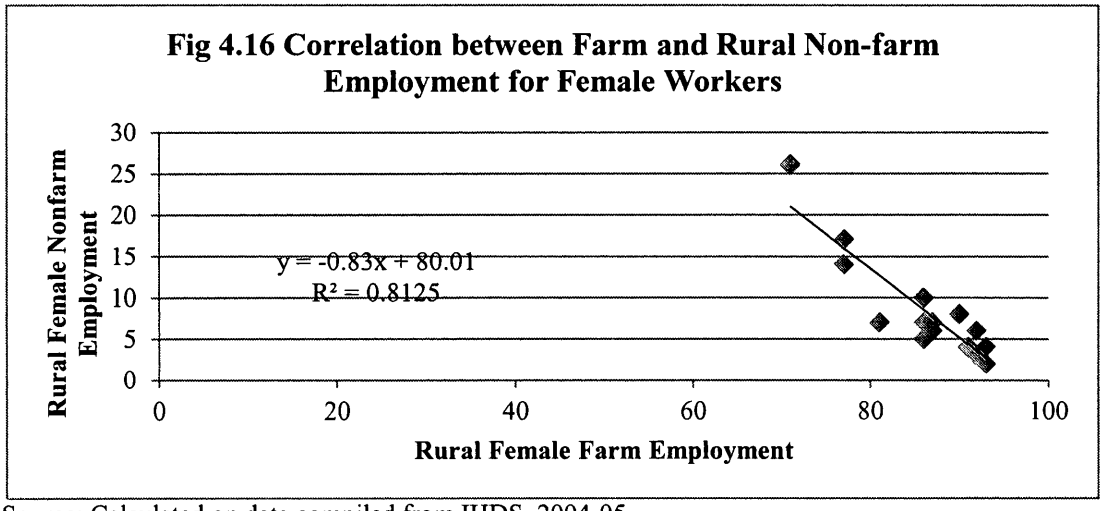


Source: Calculated on data compiled from Chadha, 2003

Gender based disparity in rural employment exists in general for all states of India where male workers have more stable employment compared to their female counterparts. Correlation analysis (Fig 4.15 and 4.16) shows that there is some association between farm and nonfarm employment in rural areas in general. The correlation analyses below

show that a decline in rural farm employment leads to an increase in rural nonfarm employment. This relationship appears to be stronger is the case of female workers than males.





Source: Calculated on data compiled from IHDS, 2004-05.

A regression analysis as seen in Table 4.6 further confirms this view where the relationship between farm and nonfarm employment for female workers is stronger than

male. An analysis of the plausible factors behind such a pattern needs further investigation.

Table 4.6 Regression Analysis of Farm and Nonfarm Employment of Female and Male Workers

Regression Statistics for Male Farm-Nonfarm		
R	0.59347	
R Square	0.3522	
Adjusted R Square	0.30593	
S	9.89729	
Total number of observations	16	
Male Nonfarm = 61.3993 - 0.6296 * Male Farm Oriented		
Regression Statistics for Female Farm-Nonfarm		
R	0.90139	
R Square	0.8125	
Adjusted R Square	0.7991	
S	2.74109	
Total number of observations	16	
Nonfarm = 80.0094 - 0.8314 * Female Farm Oriented		

Source: Calculated by author on data compiled from IHDS, 2004-05.

Just as differences exist for male and female employment in the rural nonagricultural sector in India, similarly wages are also gendered for workers employed in the RNFS (Table 4.7). In terms of gender, female to male ratio of wage differences has been higher for the rural nonagricultural sector compared to the agricultural sector. However, from the sectoral point of view, the ratio of disparity between the agricultural to nonagricultural wages for both male and female workers have reduced over time, with low differences in wage rates for females in both sectors. However, the RNFS is essentially not a better-paid sector than that of the agricultural sector with wage rates being generally low in both sectors.

Table 4.7 Ratios of Wage Inequalities for Females to Males and Agriculture to Rural Non-agriculture, 1983/2004-05

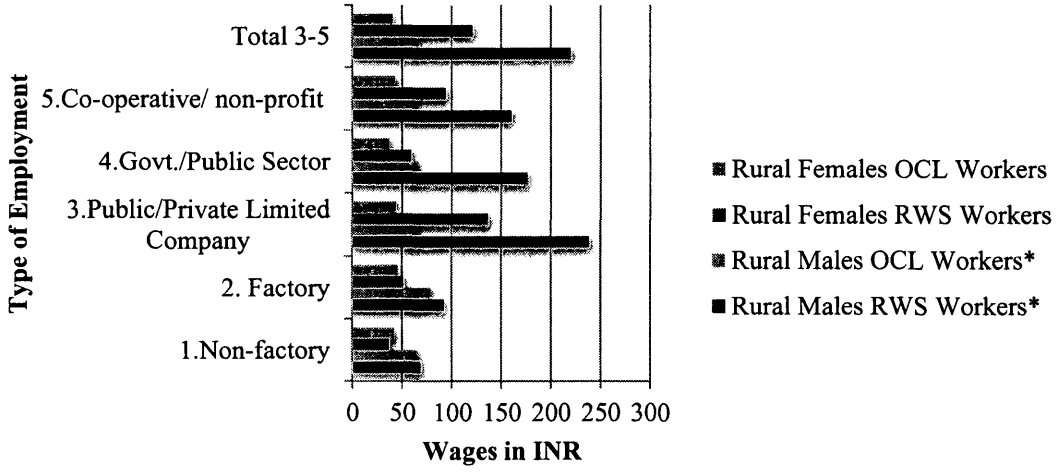
Ratio	1983	1993-1994	1999-2000	2004-2005
Females/males				
Agriculture	0.69	0.7	0.71	0.69
Non-agriculture	0.55	0.58	0.63	0.65
Agri/non-agriculture				
Males	0.73	0.72	0.68	0.7
Females	0.91	0.87	0.77	0.75

Source: Calculated on data compiled from Karan and Selvaraj for ILO, 2008

Wages are also gendered within and between the formal and informal sector. Rural male workers employed either as regular or casual workers in factories (formal sector) have higher wage rates than female workers (Fig 4.17). Wage rates for men are highest in private companies in the rural nonagricultural sector (Rs 176), although women who find work in private companies have a much lower wage compared to man

(Rs 59.11). This is because female employment in the rural nonagricultural sector is low skilled and low paid. Even for the co-operative sector, which is most often than not under state sponsorship also has marked wage differentials between male and female workers. Female workers employed in public-private (formal) limited companies, as regular employees are the highest paid in all categories of the rural nonagricultural sector. Overall, even though female workers find work as regular salaried workers the average daily wages for women do not exceed more than 2 dollars on a daily wage basis.

Fig 4.17 Average Daily Wage Differential by Wage in the RNFS by Type of Employment, 2008

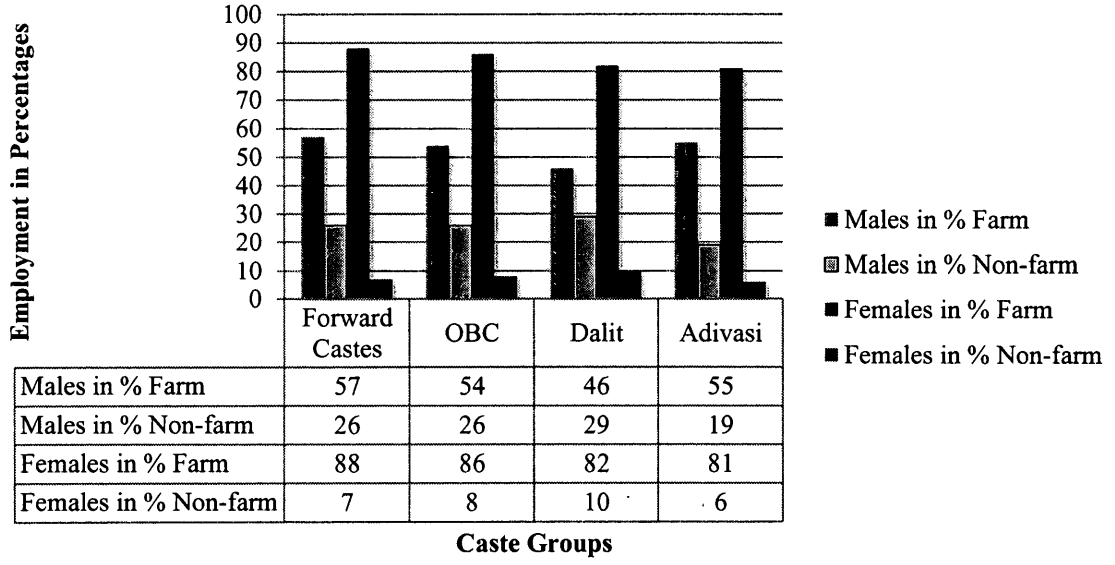


Source: Calculated on data by Sundaram 2008 * RWS=Rural Wage/Salaried, OCL=Other Casual Laborers 1) Computed from Unit Record Data (NSSO) 2) Type 1-4 Non-factory2) Factory 3) Enterprise Type 1-4 (Factory) 4) Enterprise Type (Government/Public Sector) 5) Enterprise Type 6) (Public/Private Limited Company) 7) Enterprise Type (Co-operatives/Non-profit)

Employment and wages are also differentiated on the basis of social status (caste/tribe) of workers in the RNFS in India. The rural nonagricultural sector has provided some level of employment for lower caste/tribe groups -- Dalits (SC) and

Adivasi (ST)[61]-- groups in rural India but the percentages of their employment is lower in the RNFS than in the agricultural sector (Table 4.17). Also, lower caste/tribe women are generally more disadvantaged than male workers in terms of employment in the RNFS.

Fig 4.18 Distribution of Rural Workers in the RNFS by Caste Groups



	Forward Castes	OBC	Dalit	Adivasi
Males in % Farm	57	54	46	55
Males in % Non-farm	26	26	29	19
Females in % Farm	88	86	82	81
Females in % Non-farm	7	8	10	6

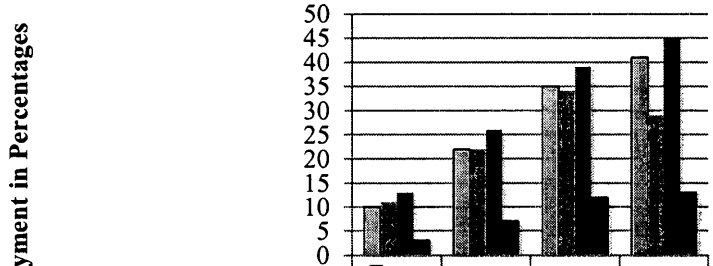
Source: Calculated from Data compiled from IHDS 2004-05.

'Forward/Upper/Non-scheduled caste (SC), non-scheduled tribe (ST)' castes in the rural nonagricultural sector are mostly engaged in agricultural employment or self-employment in nonfarm enterprises, (Fig 4.19). Whereas on the other hand, lower caste groups are largely engaged in wage labor (mostly casual labor), which is relatively higher

[61] Dalits or the Schedules Castes as defined by Census of India (SCs) and the Adivasis or Schedule Tribe (ST) are historically the most socially oppressed groups in India.

for lower caste male workers compared to nonagricultural wage labor, compared to female workers.

Fig 4.19 Types of Employment in the Agricultural and Nonagricultural Sector in Rural Areas by Caste Groups, 2004-05



	Forward Castes	OBC	Dalit	Adivasi
Males in % Agri. Labor	10	22	35	41
Males in % Non-agri. Labor	11	22	34	29
Females in % Agri. Labor	13	26	39	45
Females in % Non-agri. Labor	3	7	12	13

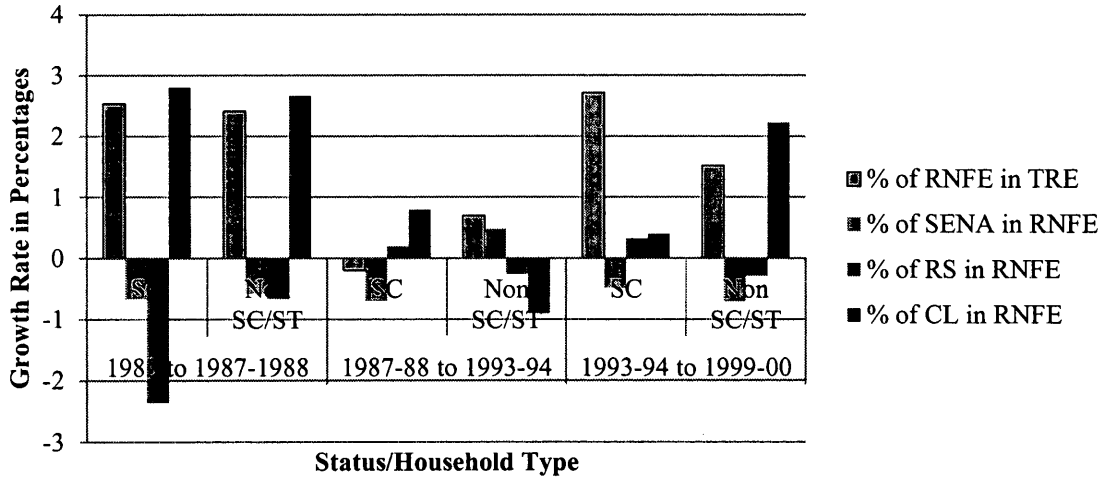
Caste Groups

Source: Calculated on data complied from IHDS, 2004-05

Fig 4.20 shows the growth rate trends of lower caste groups in relation to non-caste/tribe groups in India between 1983 and 2000. It is seen that in the period between 1983-84 and 87-88, percentages of scheduled caste (SC) population (lower caste) were fairly high for nonagricultural employment as a whole and for casual labor in particular, although percentage growth of SC population in self-employment and regular wage labor showed a negative growth. However, this was more or less the trend for non- SC/ST

population as well. The second phase-between 1987-88 to 1993-94- showed an average decline of growth rates for both population groups (SC and non SC/ST) in some categories. The post reform period saw an overall decline in self-employment for both the SC and non-SC/ST workforce. Although the percentage change of overall employment for the lower caste groups indicates an increase during this period, this was primarily because of the employment of lower caste population in casual employment during this time.

Fig 4.20 Changes in the Percentages of Rural NonFarm, Population by Caste Groups, India, 1983-2000

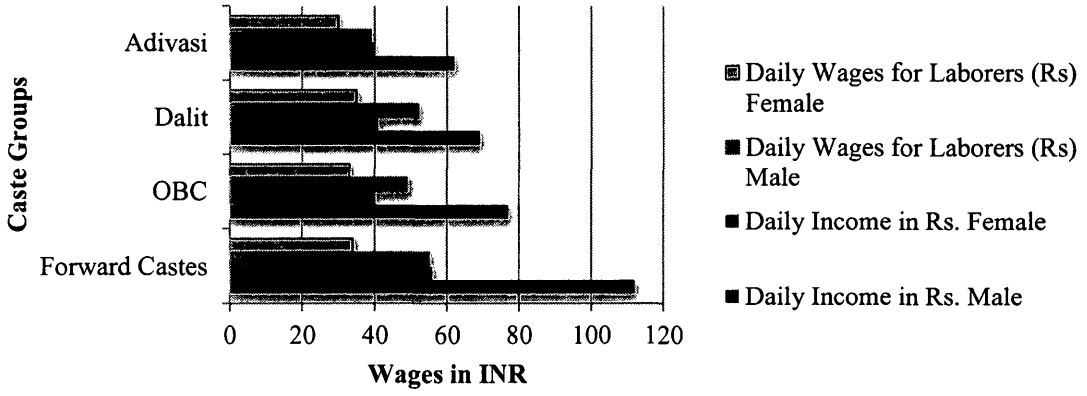


Source: Calculated on data compiled by Thorat and Sabharwal (2006).UPS: Usual Principal Status, UPSS: Usual Principal and Subsidiary Status, CWS: Current Weekly Status, CDS: Current Daily Status, SENA: Self-Employment in Non-Agriculture, RS: Regular Salaried CL: Casual Laborers, RNFE: Rural Non-farm Employment, TRE: Total Rural Employment Source: Special Report on Employment, Unemployment for the Social Groups, National Sample Survey, 1983, 1987-1988, and 1999-2000.

There are also significant wage differentials between caste groups in the RNFS. Wages as well as incomes are higher for forward caste groups in the RNFS in general,

whereas wages are generally low for female workers in all caste groups (Fig 4.21). This implies that forward caste groups are generally concentrated in high return activities (including self employment) while, lower caste groups are engaged in low return wage work in the RNFS.

Fig 4.21 Daily Income and Wages for Workers in the RNFS by Caste Groups, 2004-05



Source: Calculated on data compiled from IHDS, 2004-05

Though the RNFS has opened up possibilities for employment opportunities for diverse groups of people in the rural areas, the nature of employment for lower caste/tribe caste groups in the RNFS was rather of casual wage labor than regular wage or self-employment. These marginalized groups also had slower growth in regular employment in the RNFS between the pre-reform and post reform period. Therefore, although there have been opportunities for growth of rural nonagricultural employment for marginalized caste groups, such opportunities are limited in scope.

4.4. The Rural Nonfarm Sector in Kerala:

Kerala's economy is largely nonagricultural in nature.[62] About 64.3 percent of the rural population in Kerala is engaged in the RNFS (Map 4.1) and Kerala has the highest incidences of rural nonfarm employment (over 50 percent) in India as mentioned above. The agricultural sector has declined considerably in Kerala between the pre-reform and post reform period (4.46 percent to 0.73 percent contribution to NSDP). The secondary and tertiary sectors contribute significantly to the state's income -- 22.1 percent and 60.9 percent growth rate respectively in 2000-01 to 2008-09 from 20.1 percent and 48.9 percent between 1980-81 and 1989-90 (Kannan, 2011).

a) Trends and Patterns in Employment: There has been an overall decline in the rural nonagricultural employment (-0.38 percent) between the pre-reform and post reform period in Kerala (Table 4.8).

Rural nonagricultural employment patterns have a slight inter-district variability in Kerala. Among the 14 districts in Kerala, (other than the northern district of Wayanad) employment in the nonagricultural sector has gone up for all the districts in a more or less uniform pattern with the northern district of Kozhikode recording close to 3 percent growth rate over two decades. Unfortunately comparable data for the same time period for agricultural employment as well as recent disaggregate statistics for the farm and the nonfarm sector in Kerala are not available. Percentage of rural workforce in the fieldwork

[62] Aggregate data in Kerala is largely indicative of the rural population as well as the functional distinction between rural and urban is less pronounced and villages are fairly bigger and comparable to urban areas in Kerala. Most studies indicate that Kerala has a contradictory process of 'rurbanization' of urban areas rather than 'urbanization' of rural areas (Sreekumar, 1990; Eapen, 2001).

districts of Alappuzha, Ernakulam, Kollam and Thiruvanathapuram has increased only marginally over time between 1981 and 1991 (is (< 1 percent growth rate between 1981-1991) as seen in Table 4.8 below. There is also lesser spatial variability in rural nonagricultural employment in Kerala (C.V. 2 percent) for both the time periods suggesting that the growth of rural nonfarm employment in Kerala is more or less geographically uniform which indicates the overall nonagricultural character of the state's economy.

Table 4.8 District-wise Rural Nonfarm Employment in Total Rural Workforce in Kerala, 1981/1991

State	1981 (%)	1991(%)	%Growth Rate
Kannur*	41.94	43.92	0.47
Wayanad	43.08	41.94	-0.26
Kozhikode	19.16	24.09	2.57
Malappuram	54.82	57.44	0.48
Palakkad	40.8	45.1	1.05
Trichur	32.63	34.88	0.69
Ernakularn	49.65	53.93	0.86
Idukki	48.85	51	0.44
Kottayam	17.59	21	1.94
Alappuzha	43.8	44.89	0.25
Pathanamthitta	49.82	51.58	0.35
Kollam		38.1	NA
Thiruvananthapuram	42.7	48.91	1.45
Total	43.16	41.53	-0.38
Co-efficient of Variation	2	2	

Source: Veethil (1995) ** Since Kasaragod district was formed from Kannur district, for the sake of comparability, Kasargod and Kannur districts are clubbed together.

With the RNFS, the manufacturing sector plays a prominent role -- in the form of traditional rural industries -- in rural nonagricultural employment in Kerala (Table 4.9).

Table 4.9 District-wise Share of Manufacturing in Total Rural Employment, 1981-1991

States	1981 (%)	1991(%)	%Growth Rate
Total	24.68	21.48	-1.30
Kannur	32.99	24.68	-2.52
Wayanad	16.21	11.97	-2.62
Kozhikode	21.38	14.57	-3.19
Malappuram	17.67	14.88	-1.58
Palakkad	24.35	20.75	-1.48
Trichur	25.82	24.4	-0.55
Ernakulam	28.12	25.49	-0.94
Idukki	19.39	14.13	-2.71
Kottayam	17.97	16.44	-0.85
Alappuzha	20.96	20.61	-0.17
Pathanamthitta		14.55	NA
Kollam	29.86	32.88	1.01
Thiruvananthapuram	26.36	21.14	-1.98
Co-efficient of Variation	0.01	0.23	

Source: Calculated on data compiled from Veethil (1995)

It is still a prominent source of rural employment in the fieldwork districts --Alappuzha, Ernakulam, Kollam and Thiruvananthapuram --where the coir industry is located. Employment in the overall manufacturing sector has declined for all districts except for

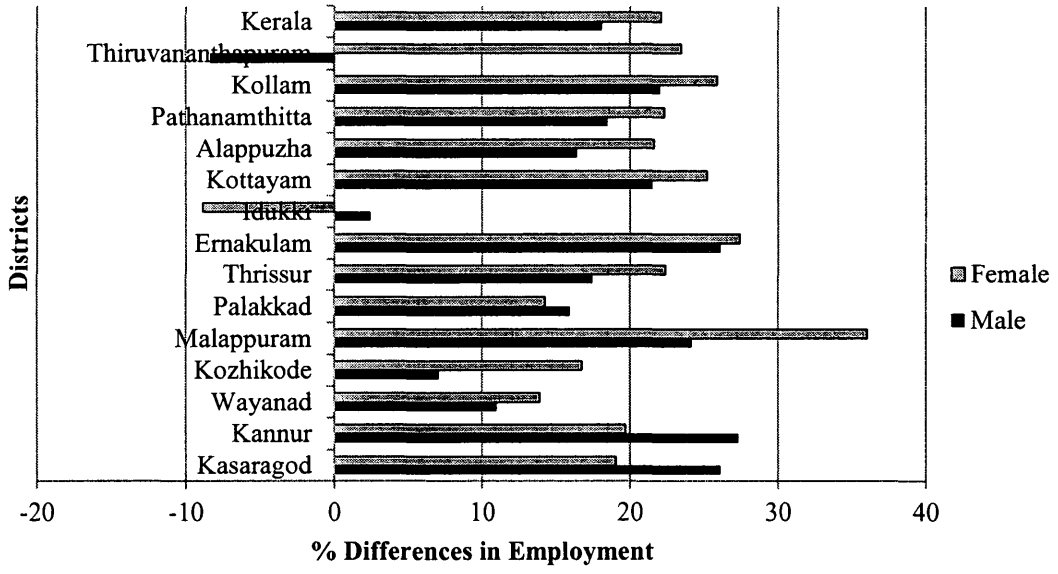
Kollam (coir belt district) in the state in recent years (Table 4.9). Incidentally, these are also the districts along with Pathanamthitta, Kannur and Kasargod[63] (NSSO, 59th Round), which have witnessed an increase in unemployment rates (between 20 to 30 percent) between 1998 and 2003 respectively (Zachariah and Rajan, 2005: 17). The spatial variability of employment in the rural manufacturing sector (as in the case of the employment in the RNFS in general) has remained more or less the same in both time periods (with very minor increase in 1991 based on the coefficient of variation). Similar patterns of growth in both the total rural nonagricultural and rural manufacturing employment implicate the significance of the rural industries like coir in the RNFS in Kerala.

Female employment in the RNFS at the aggregate level (as seen at the state level comparison above) as well as the district level in Kerala has generally been high compared to many other major states in India (Fig 4.22). The growth of change between the pre-reform-1981 and post reform 2001 for female employment in the RNFS has been higher than male employment in most districts except for 3 districts as seen in Table 4.10 and Fig 4.22. However, there is some level of inter-district variability in gender-based employment in the state with an increase in female employment for half of the states and decline in the rest. Female employment in the coir belt (except Ernakualm district)

[63] Kasargod and Kannur district along with Wayanad (highest) where agrarian distress is in peak in Kerala leading to high number of distressed farmer's suicide in the recent years (Dept. of Economics and Statistics, Government of Kerala, 2009)

showed moderate increase in this period suggesting the increasing nonagricultural orientation of these places.

Fig 4.22 Percentage Difference in Rural Nonagricultural Employment for Male and Female Workers in Kerala, 1981-2001



Source: Calculated from Census Data of various years, Government of India. Percentage difference for Kasaragod and Pathanamthitta districts is between 1991-2001

The spatial variation of female employment has been slightly higher than male employment in the state, particularly in the post reform period (based on the coefficient of variation). This pattern corresponds with the trend in female employment at both scales (developing country and India) as discussed above, suggesting that male workers have relatively stable employment in the RNFS than female workers. Spatial variability in female employment is also related to the variation of employment patterns for female workers both within the RNFS as well as between the rural and urban industrial

components of the RNFS. Variation in employment for female workers may also be caused by irregularity in employment patterns, employment in the informal sector, which is highly variable as well as inability to provide sufficient household income of one particular source of employment. In such cases, female workers have to diversify into multiple sources of income outside the RNFS as well (as will be discussed in the field based chapters)

Table 4.10 District-wise Percentage of Male and Female Workers in the Rural Nonagricultural Sector in Kerala, 1981 to 2001

	Male				Female			
Districts	**1981**	**1991**	**2001**	**Growth Rate 1981-1991**	**1981**	**1991**	**2001**	**Growth Rate 1981-1991**
Kasaragod	NA	56.59	83.2	**4.70***	NA	67.05	86.1	**2.84***
Kannur	56.07	60.78	83.4	**1.86**	40.1	39.1	59.8	**2.65**
Wayanad	39.9	48.85	50.9	**0.21**	37.48	44.84	51.4	**0.73**
Kozhikode	76.43	73.82	83.5	**0.66**	63.74	69.13	80.5	**0.82**
Malappuram	51.31	53.06	75.5	**2.11**	30.17	39.43	66.2	**3.39**
Palakkad	46.56	47.26	62.5	**1.61**	18.11	18.53	32.4	**3.74**
Thrissur	64.24	64.81	81.7	**1.30**	47.41	51.25	69.8	**1.81**
Ernakulam	62	61.54	88.1	**2.16**	45.9	57.6	73.3	**1.36**
Idukki	45.97	54.33	48.4	**-0.55**	63.76	67.62	54.9	**-0.94**
Kottayam	53.79	55.15	75.3	**1.83**	55.51	59.68	80.7	**1.76**
Alappuzha	60.07	59.03	76.5	**1.48**	55.37	58.71	77	**1.56**
Pathanamthitta	NA	42.32	60.8	**4.37***	NA	55.19	77.5	**4.04***
Kollam	47.17	49.08	69.2	**2.05**	63.31	73.24	89.2	**1.09**
Thiruvananthapuram	83.87	43.24	75.5	**3.73**	59.91	57.92	83.4	**2.20**
Coefficient of Variation ≈	4% 4%	1%	1% 1%	1%	4%	2% 4%	2%	2% 2% 2%

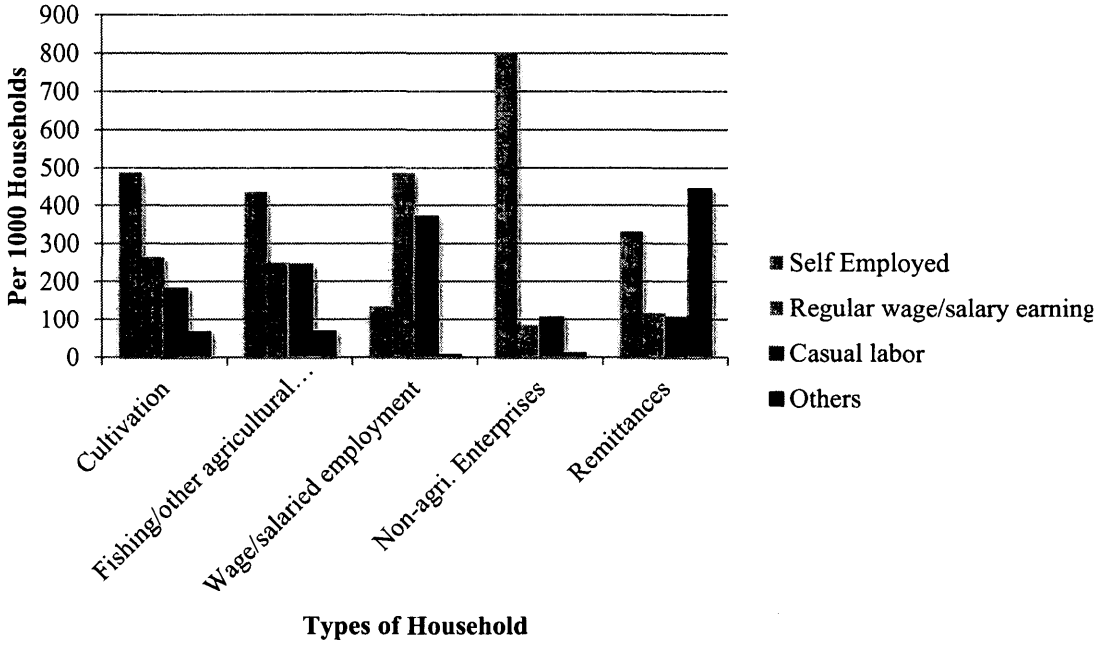
Source: Government of India, Various Census reports as cited in Manjula (2002). * Growth calculated for 1991-2001

b) Wages and Income: In terms of wages, Kerala has the highest wage levels in the rural agricultural as well as the nonagricultural sector. Wage levels however, vary

between factory and households workers, between skilled and unskilled workers, type of work and physical activity involved as well as according to specific locations (Labor Commisionerate, Government of Kerala, 2008-12). Although wage levels in Kerala are higher by national standards, they are quite low by international standards. Average daily wages for factory (formal sector) workers ranges between Rs 100 to Rs 500 depending on the type of factory and nature of skill requirement (Ministry of Labour and Employment, Government of India, 2005-06). Skilled workers in small-scale household units (informal units) do not receive more than Rs 100-120 (less than 3 dollars) a day (Ministry of Labour and Employment, Government of India, 2005-06). Wages in the RNFS are also subjected to inter-district variations in the state, where wage rates may be higher in one place than the other (based on fieldwork).

In terms of rural household income, agriculture is still the most important source of income (Table 4.13). A large number of rural households earn their income of self-employed entrepreneurial activities in the RNFS as well as in agriculture. Households engaged in regular salaried labor have reported lower income from nonagricultural enterprises compared to agriculture. Also as lesser number of households reported income from salary/wages through nonagricultural enterprises, it is clear that small-scale rural nonagricultural enterprises rely less on wage labor and may instead employ family labor.

Fig 4.23 Households Recieveing Income from Different Sources in Kerala, 1999-2000



Source: Calculated on data compiled from NSSO, 55th Round, 1999-2000

The monthly per capita expenditure of households engaged in nonagricultural enterprises in rural areas fall is Rs. 822, which is slightly lower than households engaged in agricultural cultivation (Ras 842) (NSSO, 1999-2000). A significant part of the rural household income in Kerala also comes from remittances as seen in the table above, which may aid self-employment or help in maintaining a subsistence income for most rural households. Overall, there is not a significant difference of income earned from the agricultural or rural nonagricultural sector in Kerala.

4.5. Conclusion

This chapter examined some of the macro level data on the RNFS pertaining to productivity, employment and wages and their impact on income and labor relations. These issues have been treated at three scales -- developing countries, India and Kerala. Limitations and paucity of comparable secondary aggregate data on the RNFS over time and space have restricted the scope of analysis to be largely descriptive in nature with explanatory statistics provided wherever possible.

The nonagricultural sector is an emerging sector in rural areas of most developing countries of the world while agriculture continues to be the foremost rural economic sector. According to World Development Report, 1997, the RNFS contributed 14.3 percent of average per capita GNP in the African region; 36.41 percent in the Asian region; and 49.02 percent in the Latin American region. The rural nonfarm economy accounts for 30 percent of full time employment in Asia and Latin American countries, 20 percent in West Asia and North Africa and 8 percent in African countries. Among the prominent sectors of the rural economy, the manufacturing sector accounts for only 20-25 percent of rural employment in all the developing regions of the world, while all other sectors accounts for an average of 75-80 percent of the rural nonagricultural employment. Rural employment in the RNFS tends to be more concentrated in activities located in semi urban-semi rural areas due to the rural urban linkages of rural activities. In most developing countries, a significant part of the rural workforce is employed as wage laborers in the RNFS other than rural nonagricultural self-employment. While agriculture

remains the dominant source of household income, the RNFS is also emerging as a significant source of income. While cultivating farm households in rural areas are not pressed to diversify into nonfarm sources of income, income from the RNFS is relatively high for households that earn a smaller share of income from agricultural wage employment. This suggests that the rural workforce diversifies into nonagricultural activities under conditions of distress as agricultural wage incomes has declined in most developing countries in recent years. The RNFS is an important source of employment for female workers in rural areas with female workers constituting more than a quarter of the full time rural nonfarm employment. However, male workers are the dominant work force in the RNFS across different developing countries. Although work participation of female workers have increased in the RNFS, male workers have relatively steady employment in the RNFS compared to female workers across different countries in different time periods.

A slow but growing RNFS has become an important contributor to India's NSDP with the decline of the agricultural sector in recent years. However, contribution of agriculture to the national income is still higher than that of the rural nonagricultural sector for India as a whole. Although a prominent nonfarm activity within the RNFS, the rural industrial or manufacturing sector is growing at a slower pace compared to the service sector and other subsectors of the rural economy. There is some level of economic diversification *within* the RNFS in India, as income from one source does not meet the subsistence level of income for rural households. Lower income from the RNFS

may be due to the irregularity in the nature of employment of most rural nonagricultural activities and low wages due to the informality of employment in this sector. On the other hand, the lower index of diversification in rural economy -- as a whole (farm and nonfarm combined) -- indicate the continued importance of the agricultural sector in rural areas in India despite the gradual growth in the RNFS. While recent employment statistics indicate a decline in the nonagricultural sector in general in the post reform period; at a disaggregated level, growth rate of nonfarm employment has increased for most major and minor states in India. The ratio of distribution of workers between the rural agricultural and nonagricultural sector however indicate that agricultural employment is still significant in many Indian states. The nature of rural nonfarm employment in India is irregular and part time in nature. Also, gender based disparity in rural employment exists in general for all states of India where male workers have more stable employment compared to their female counterparts. In terms of wages, female to male ratio of wages has been higher for the rural nonagricultural sector compared to the agricultural sector. Wages are also gendered within and between the formal and informal sector. Employment and wages are also differentiated on the basis of social status (caste/tribe) of workers in the RNFS in India. The rural nonagricultural sector has provided some level of employment for lower caste/tribe groups -- Dalits (SC) and Adivasi (ST) -- groups in rural India but percentages of employment of lower caste groups (particularly women) is lower in the RNFS than in the agricultural sector. While, nonagricultural labor is performed largely by lower castes/tribe Dalits and Adivasis

forward castes in the rural nonagricultural sector are mostly engaged in agricultural employment of self-employment in nonfarm enterprises. Statistics also suggest that the increasing share of lower caste groups in casual employment explains the overall increase in their employment between the pre-reform and post period in India. There are also significant wage and income differentials between caste groups in the RNFS wherein forward caste groups are more privileged in comparison to lower caste groups, particularly female workers.

In terms of geographical distribution of rural nonagricultural employment in India, Kerala has the highest incidence of rural nonagricultural employment (64.3 percent) of more than 50 percent of the total rural nonagricultural employment for 2009-10. However, there has been an overall decline in the rural nonagricultural employment of -0.38 percent between the pre-reform and post reform period in Kerala. There is also less spatial variation in rural nonagricultural employment among the districts of Kerala suggesting that the growth of rural nonfarm employment in Kerala is more or less geographically uniform. Within the RNFS, the manufacturing sector plays a prominent role -- in the form of traditional rural industries -- in rural nonagricultural employment in Kerala. Employment in the overall manufacturing sector has however declined for almost all districts in the state in recent years. The spatial variability of employment in the rural manufacturing sector (as in the case of the employment in the RNFS in general) has remained more or less the same between the pre-reform and post reform period. Female employment in the RNFS at both the aggregate as well as the district level in Kerala has

generally been high compared to many other major states in India. There is some level of inter-district variability in gender-based employment in the state with an increase in female employment for half of the states and decline in the rest between 1981 and 1991. As in the rest of India, the spatial variability of female employment has been slightly higher than male employment in the state, particularly in the post reform period indicating more stability of male workers in the RNFS. In terms of wages, Kerala has the highest wage levels in the rural agricultural as well as the nonagricultural sector. Wage levels however, vary between factory and households workers, between skilled and unskilled workers, type of work and physical activity involved as well as according to specific locations. Although wage levels in Kerala are higher by national standards, they are quite low by international standards. In terms of rural household income in Kerala, agriculture is still the most important source of income A large number of rural households earn their income from self-employed entrepreneurial activities in the RNFS while households engaged in regular salaried labor have reported lower income from nonagricultural enterprises compared to agriculture. A significant part of the rural household income in Kerala also comes from remittances, which may aid self-employment or help in maintaining a subsistence income for most rural households.

Despite the growing potential of the RNFS in the rural economies of developing countries including India and Kerala, agriculture still remains the most significant economic sector in rural areas. Rural employment and employment relations, wages and income in the RNFS are not significantly different from the agricultural sector. The next

four chapters will look at the nature of RNFS and social and economic inequality in it through the case study of the coir industry in Kerala.

Chapter V: Relations of Production in the Coir Industry

5.1. Introduction:

This chapter examines the nature of social relations of production in the coir industry. The understanding of social relations is essentially based on an examination of relations of class -- class seen as a relation of exploitation between large groups of people -- at multiple scales. Class and thereby the relations of exploitation between groups of people are based on their relations to the means of production and their positions and roles in the process of social production. An analysis of social relations of production must include an analysis of the ownership and control of the means of production (instruments of labor and labor power). It must also deal with intra-class relations including relations of competition among owners of means of production, which has profound implications for capital accumulation. A concrete analysis of social relations of production must also look at the mutual interaction between class and non-class (gender/caste) relations. Class relations also influence the spatial structuring of social relations creating conditions for an uneven geography of capitalist accumulation. The discussion of social relations in this chapter will unveil the extent to which capitalist relations are emerging in the coir industry and the different forms in which labor is subsumed under capital.

There are six sections in this chapter following the introduction. The second section reviews the historical geography of social relations of the coir industry. Herein, I argue that colonialism had a significant role in the emergence of specific social relations

of production and spatial organization of the production process in the coir industry. The third section maps the contemporary classes and class relations in the coir industry. This section examines the emergence of the main classes and the process of class differentiation in the coir industry, the role of the different classes in the production process, the relations of exploitation between classes, capitalist competition and the internal relationship between fragments of the same class. The next two sections (4 and 5) add further to the discussion on class relations through an examination of the main forms of exploitation and labor control between employers and workers. The relationship of production between class and non-class entities is explored in the next section (section 6). Following the detailed study of classes and class relations in the coir industry, I briefly look at how social relations are spatially organized in section 7. In this section I assert that unequal relations of power and wealth among classes reflect in the geographical organization and division of labor in the coir industry. The last section concludes the main findings of this chapter in the light of the conceptual framework on class and nature of capitalism in the rural nonfarm sector in general.

5.2. Historical Geography of Social Relations in the Coir Industry:

Linkages to the global market -- from the colonial era[64] till the present -- have been instrumental in creating specific conditions of production, the emergence of specific

[64] According to Alavi (1981), the colonial era in India was characterized by a colonial mode of production. Within this mode, relations of production in the colonized countries were brought about by the process of commodity exchange through the logic of the colonial market. This mode of production was based on the concept of 'development by underdevelopment' and 'dependent development' whereby appropriation of

relations of production and spatial organization of production in the coir industry (Isaac, 1983, 1990; Jeffrey, 1984; Kannan, 1999; Heller, 1999; Balakrishnan, 2005).

The coir trade during colonialism was highly monopolized by the British trading class with barriers of entry for local entrepreneurial activities. The commercialization of the coir industry was marked by the entry of the British in Kerala in the year 1800 and continued under their control till the early part of 1950s (Balakrishnan, 2005). The British saw coir production as a potential means of furthering capital accumulation in England. Coir production under British control was chiefly meant for export. Initially, coir yarn was imported from Kerala and processed into consumer oriented manufactured goods[65] in London for the home market as well as traded with other European countries to earn foreign exchange revenues for the British Government (Balakrishan, 2005:10:20). Later on British traders and manufacturers initiated coir production and trading at a large scale in Kerala. Although British traders relied on local labor[66] and local intermediaries for organizing and financing coir production, they had sole monopoly when it came to trading of coir globally.[67] The East India Company, the prime mover of colonial enterprises in India, secured British monopoly by setting up integrated networks of

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surplus value and accumulation of capital takes place in the metropolis (colonial countries) at the expense of underdevelopment and dependent development in the peripheries (colonies).

[65] The value of coir goods increasedby 80 percent (matting) and 47 percent (mats) between 1929-30-matting (53.08 Lakh Rs.) and mats (1.76 Lakh Rs.) and 1936-37-matting (95.78 Lakh Rs.) and mats (2.58 Lakh Rs.) (George Report, as cited in Jeffrey, 1984).

[66] Workers of the coir industry was harnessed from the landed Ezhava gentry (Heller, 1999)

[67] Strong barriers against the entry of local entrepreneurs in coir trading were created to ensure the monopoly of the British trading class in coir production. 'The established exporters through their trade association- Coir Yarn Balers Association- attempted to keep out the competitors. The Association acted as a cartel of leading yarn exporters with quotas fixed for each member, price fixing arrangements and pool contributions and penalties for exceeding the qouta' (cf. Isaac, 1990:59).

foreign banks for financing their trade and British shipping companies in Cochin. These processes were aided by the colonial state in both India and London in the 1860s. Stipulated acts and legislations passed by the British constituency in Madras[68] ensured free trade flows of coir and other products to Europe via London. These processes were also greatly facilitated by native rulers of the princely states[69] and local money lending classes in Cochin and Alappuzha (Balakrishnan, 2005[70]: 13). The British traders also had absolute control of technical know-how like the baling press[71] (Jeffrey, 1983; Balakrishnan, 2005). In all these aspects there was hardly any scope for local entrepreneurs to venture into self-established coir production processes or trading prior to 1920s (Isaac, 1983). Even when local entrepreneurs made their entry into coir production and shipping in the 1920s and in the inter-war period,[72] utilization of imported technology of any kind was beyond their means. There were also legal regulations that limited their scale of operations to small production units as appendages to the big British coir factories (Isaac, 1983). The export orientation of coir production in the colonial era, initial barriers of entry into coir trade and production, and later dependency of local

[68] The present day Chennai in Tamil Nadu

[69] Kerala had three princely states of Travancore, Kochi and Malabar. Malabar was later taken over by the British under the Madras presidency.

[70] Fieldwork interview was conducted with Dr. P.K. Balakrishnan, former Director of Coir Board. Some historical data has been referenced from his book as well from interviews. See, Balakrishnan, 2005.

[71] Coir particularly yarns were exported in bales (a large package tightly bound with twine or wire and often wrapped) and were quite bulky and imposed heavy freight charges. To overcome such transportation costs, the trading companies imported hydraulic baling press in 1985 from Europe to Cochin.

[72] Demand for hard fibers like coir was high during the inter-war period in England and in whole of Europe. Coir was often used as flooring materials in medium scale and low-income households. This rise in demand provided opportunities for local entrepreneurs who graduated from within the industry as well as fresh entrants to start their own establishments. See Jeffrey, 1984.

producers on the British trading class dwarfed the internal/domestic market for coir in India (Balakrishnan, 2005).

The way coir production is geographically organized (in the form of spatial division of labor) in Kerala at present has been largely shaped by the political economy of trade relations during the colonial era. This is reflected in the 'preferential' (for the British) supremacy of some regions over others as well as the clear rural-urban[73] divide in the geographical location of production activities. The first coir factory for production of coir mats was established in the port town of Alappuzha (the British named it Alleppey) as early as in 1859 due to its proximity to the backwaters[74] and water canals and a meeting point for internal trade routes (Coir Board, 2008). Alappuzha was also an international port (on the Arabian sea) for maritime trade with western countries in the pre-colonial and colonial period. Despite being an important natural port for internal merchandise transport within Kerala and a prime port for maritime trade, Alappuzha never emerged as a major global trading center for coir exports until this day. On the contrary trading activities are now centralized in the neighboring city of Cochin[75] and Alappuzha became the production hinterland of Cochin. The development of Cochin as a major commercial city in Kerala is the outcome of political economic strategies of the

[73] Although Kerala has a unique rural urban continuum which doesn't show marked distinction in physical and functional 'appearances' of a rural area from an urban, difference between towns/cities and peripheries/villages are clearly demarcated in the case of coir production (based on fieldwork observation)

[74] The Kerala backwaters are long chains of brackish water bodies like lakes and lagoons that runs north to south across the state and parallel to the Arabian Sea. The backwaters are intricate webs of natural canals and crucial for internal river transport in Kerala

[75] Cochin is the anglicized version of Kochi. Cochin is renamed as Kochi in Kerala at present.

British to maximize their trading profits.[76] The rest of the coir producing areas in Kerala [Kollam (British Quilon), Thiruvananthapuram (British Trivandrum) and northern Kerala districts particularly Kozhikode (British Calicut)] were turned into rural sub-hinterlands for processing of raw material for the industry.[77]

While spatial organization of production was underway, there was also significant transformation in the labor process and class relations within the coir industry. The British factory system was a coercive factory regime initially established mainly to discipline labor through closer supervision and control over workers and to discourage them from seeking work with non-British competitors (Jefferey, 1984:1160, Isaac, 1990). Strategies to cut labor costs or depress wages were aided by the availability of large amount of surplus labor reserves in the rural areas (in the form of unemployed agricultural workers due to commercialization of agriculture[78] as well as family labor) allowing the possibility of extraction of surplus through the informal market (Jeffry, 1984:1160). Such oppressive work conditions in the factory and outside led to the growth

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[76] The reason behind this transformation has been such: there were at least 19 ports in Kerala handling internal maritime transport between southern and central Kerala, and Alappuzha was the most accessible port for west bound ocean trade. However, Cochin was the preferred choice because of its position en route the European maritime trade channel (Handbook of Commercial Information of India, cited in Balakrishnan (2005:18) The British therefore pioneered the building of transport and communication infrastructure to link the backwaters[76] of Kerala through an intricate web of numerous north-south canals with the east-west bound rivers in the state for water transport of huge bulk of coir commodities to converge at the Cochin port (Balakrishnan, 2005:). Other than Cochin's supremacy in maritime transport facilities, the British consolidated all banking services in Cochin and the baling press was only available in Cochin, which took away possibilities of trade through other ports (Balakrishan, 2005). However, the most significant development was the Interportal Agreement of 1865 which granted Cochin as the only port in Kerala to be able to exercise uniform export under British Indian rates established in other major ports of India (Logan, 1887 as cited in Balakrishnan, 2005:18).

[77] See Jeffrey, R (1984).

[78] Capital-intensive colonial agriculture and change in crop patterns. See Kannan, 1999.

of strong anti-capitalists/anti-colonial resentments among coir workers culminating in full blown worker's struggles in demand for better wages and work conditions from the 1930s (Jeffrey, 1984:1160).[79] Such struggles were also supported by larger anti-colonial struggles and caste based-movements in Kerala during this time (Isaac, 1983).[80] In the face of such worker's struggles, British shippers gradually started withdrawing themselves from direct factory-based production from 1930s onwards. They restricted their operations to trading activities only from there onwards, although some factory based production continued in small ways until the 1950s. Indian entrepreneurs who entered the industry during the 1920s global boom of trade in hard fibers took over some of these British factories engaged in weaving (finished goods) processes (Isaac, 1983). The Indian entrepreneurs that entered the coir industry ascended largely from the ranks of subcontractors or managerial positions in British factories. However, a part of the landed gentry were also part of this class who entered into coir business to seize the market opportunity (Nossiter, 1982; Heller, 1999). In other words, a local entrepreneurial class gradually took over some of the British factories in the 1930s and 40s leading up to the disintegration of the British factory system in the 1940s. Marked differences in the form and use of productive forces became apparent between the raw material and the finished goods branches of the industry. The use of any form of technology was confined chiefly to the weaving/finished goods manufacturing sector due to the capital intensiveness of this branch. Indian producers also established small factory units and workshops in the

[79] See Jeffrey, R (1984)
[80] See, Isaac, T.M.T. (1983).

countryside (Jeffrey, 1984: 1160). However, a part of the weaving work was subcontracted out to the informal household production units to take advantage of the availability of a cheap labor force on the one hand and place-based specialization of weaving techniques and skills on the other (Isaac, 1990). The labor intensiveness and low skill requirement in the raw material extraction and processing/yarn section of the industry, also allowed work to be subcontracted out to household units through the implementation of the traditional 'put out system'[81] (Isaac, 1990). Most of the coir workers in the raw material as well as the finished goods sector were recruited from the *Ezhava* caste[82] and their kinship and family relations were roped in to building a formidable labor force through the subcontracting system (Jeffrey, 1984:1160; Heller, 1999: 187). By the end of the colonial period, a three-tier class hierarchy characterized the coir industry. This included: an upper class of traders/exporters at the top who directed and controlled but were not always necessarily involved in the production of finished goods and commodities; a large layer of medium and small scale producers who were engaged in weaving and raw material processing (yarn) work subcontracted out to them by the traders/exporters. A large section of workers (both wage and non-wage) who worked for different types of producers formed the lower rung of the class-hierarchy. Layers of intermediate classes in the form of

[81] 'Put out system' is characteristic of merchant capital where the merchants advance working capital or raw material to the workers and procure the finished products for a price. See Isaac, 1990.

[82] Most workers ventured into the coir industry due to exploitation under feudal conditions and caste discrimination in agriculture.

traders/middlemen/brokers/agents/supervisors/dealers connected the production process and classes to each other.

Colonialism brought about remarkable transformations in Kerala's society particularly for its economic processes including the coir industry. First, colonialism started an early trend of export-oriented production in Kerala and dwarfed the growth of local markets for coir. Second, colonial trade relations and social relations of production led to the emergence of a specific geography of production in the coir industry. The spatial organization of production is reflected in the concentration of specific production processes in specific geographical locations of the principal coir producing areas in Kerala (Balakrishnan, 2005). Third, production for external markets has over the years created a form of class hierarchy (in terms of ownership and control of property and means of production) following the product linkages in the industry (Isaac, 1990; Balakrishnan, 2005). Colonialism promoted a dependent structure of production and the emergence of a class structure, which was influenced by the underlying colonial principle of the international division of labor.[83] Exploitative class relations between the owning and the laboring classes were at a later stage met with resistances in the form of class struggles which eventually led to the withdrawal of the colonial hold on the coir industry in the years following the independence of India (Kannan, 1999; Heller, 1999). Fourth, colonialism-induced unequal class relations set the trend of an uneven development of the

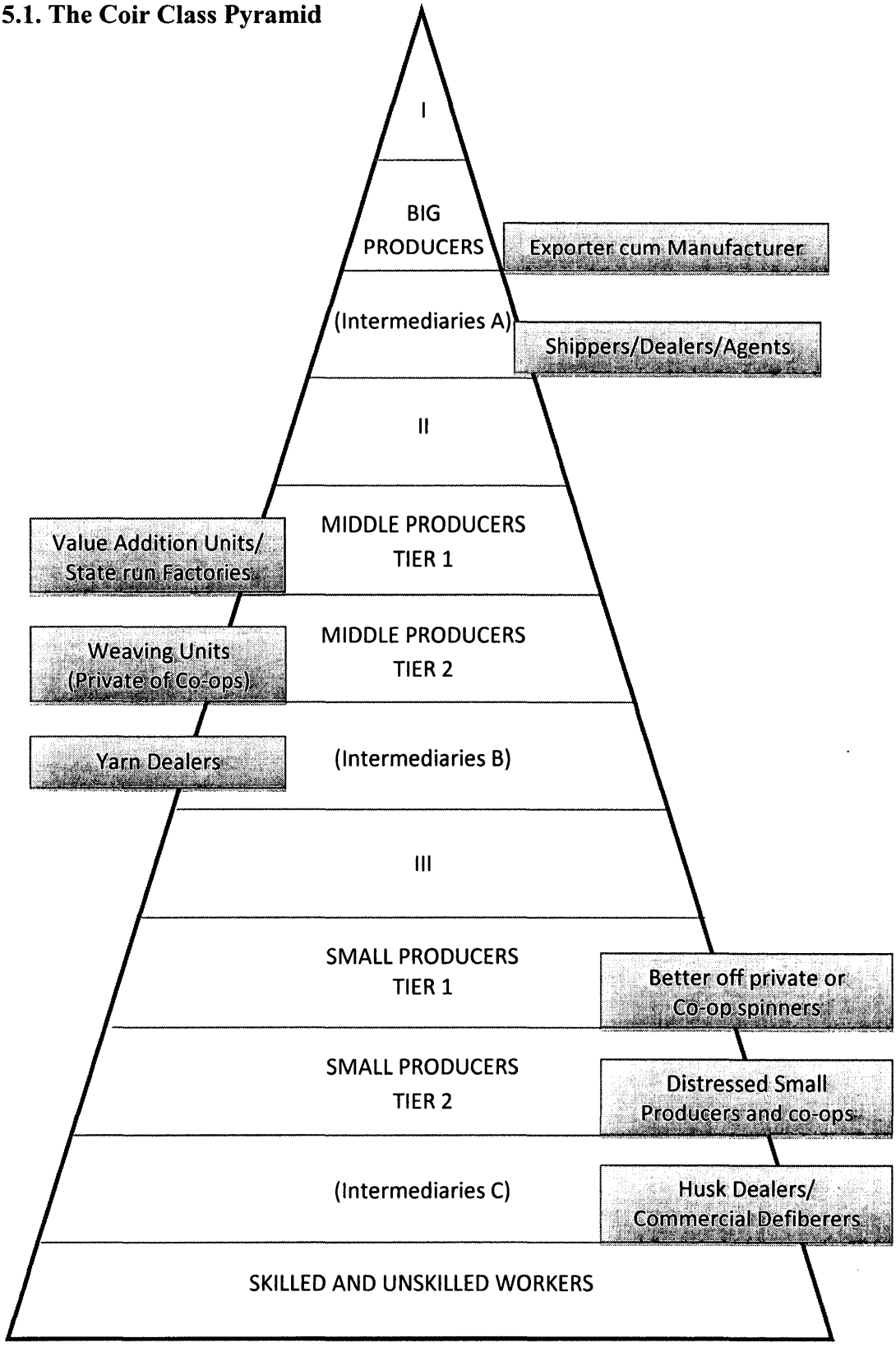
[83] The international division of labor included: the capitalist classes in the core countries and domestic intermediate and working classes in the peripheries. This structure was strictly evident in the coir industry during the early British period, but gradually transformed since the 1920s with slow appearance of the domestic capitalist class. See Isaac, 1983; Heller; 1999. See Frank, 1975; Alavi, 1975; Amin, 1977, for an understanding of the colonial class structure and related developments.

productive forces (means of production and labor power) across branches of the industry and across geographic spaces. Class relations (and associated development of productive forces) set the context in which the present-day configuration of classes and class relations in the coir industry took shape.

5.3. A Map of Contemporary Classes and Class Relations in the Coir Industry:

The existing social relations of production in the coir industry are characterized by the domination and control of a large working class by a small propertied class in the process of surplus extraction.

Fig 5.1. The Coir Class Pyramid



The main classes in the coir industry are distributed in the two main sectors[84] of the coir industry. Class relations in the industry are constituted like a pyramid with a relatively small section of big[85] exporter cum producing class (EP from here on) -- large-scale capitalists -- at the top, followed by tiers of medium scale producers in the middle and a broad section of small-scale producers at the bottom (Figure 5.1). The three tiers of the owning/employing classes are known as *Mudalali* while the large numbers of skilled and unskilled workers are known as *Thozalali* in the local (Malayalam) language. The main classes in the industry are identified and described in the following section in terms of their origin, their role in the production process and relation to the means of production. The information furnished here is based on field-based observations and interviews.[86]

a) Exporting cum producing class (EP)[87]: The exporter-producer (EP) class occupies the topmost rung of the class hierarchy in the coir industry. This class has been the main trading/merchant/ exporting class in the industry during the later colonial period continuing in the postcolonial period up till now. Among this class of traders/exporters,

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[84] Here the word 'sector' is used only for distinguishing the two main forms of production in the coir industry and doesn't have any conceptual meaning.

[85] Here 'big' is expressed in the position of the class in the class hierarchy as well as concentration of amount of capital in the hands of this class. These big EP class is small in actual population compared to the rest of the classes.

[86] The class categories are indentified in the light of Lenin's description of classes in 'the Development of Capitalism in Russia, 1956:172-189. The description of classes in the industry deviates slightly from Lenin's actual description of classes in Russia.

[87] The trading class has not been separated from the big exporter-producer class as two separate classes mainly because the top 15-20 big exporters in the industry are also the big producers of finished goods (based on fieldwork) while the rest of the exporters may be subcontracting coir goods for internal trade or subcontract orders for the big EM. See http://coirboard.gov.in for list of exporters in India.

20-25 big exporter-producers own large-scale production enterprises for production of valued added[88] finished coir commodities such as coir mattings and other technology-enhanced products and by-products[89] (Coir Board Statistics, 2012). These enterprises were either bought from the British (as mentioned above) or were newly established factories during the later colonial period. There are some relatively newer members in this class who entered into the coir trade after late 1980s. They have taken to production processes through availability of Foreign Direct Investments (FDI) from global buyers[90] in the post economic reform period of 1990s.

In the coir commodity production structure, the big EP class has the 'absolute' control[91] in terms of the production and exchange of commodities in the market. Based on numerous interviews with people associated with the export factories[92] it has been found that the big export houses in Kerala are at present partly controlled by fragments of foreign and partly by other fragments of domestic capital.[93] Liberalization of the Indian economy has opened up possibilities for a renewed (since colonial period) yet gradual

[88] Value addition here is not just simply understood in its economic definition-which is the sum of the cost of labor, cost of depreciations, and cost of unit profit, considered as value added per unit. Rather it is understood as the addition of "extra" features in the final product that provide an additional competitive edge to products made by a company in the market (based on fieldwork interviews)

[89] See Chapter 5 for a discussion of the products.

[90] FDI Inflows to Coir Industry in India has been estimated to be around ` 50.17 crore which is approximately USD 1.12 million from April 2000 to August 2007. FDI Inflows to Coir Industry in India have been quite encouraging in terms of carrying out various activities such as establishment of manufacturing units for coir products and also introducing export-oriented units for the same to bring in more revenues. (http://business.mapsofindia.com/fdi-india/sectors/coir.html)

[91] As Lenin says in the context of the agricultural bourgeoisie that although the big bourgeoisie are a small minority-'as to their weight in the sum total of peasant husbandry-in the total quantity of means of production belonging to the peasantry, in the total amount of produce raised by the peasantry, the peasant bourgeoisie are undoubtedly prominent' (1956:178).

[92] Their identities and positions are anonymous.

[93] Domestic retail companies (unnamed by interviewee)

entry of foreign buyers into the coir industry.[94] These foreign buyers (mostly large retail houses) are based in different foreign countries (US, England, Netherlands, Australia, other European Countries etc.). They place orders through their business agents who work the details of a purchase order with exporters based in Kerala. The main role of the exporter is to export value added finished coir goods as well as processed raw materials[95] to different countries of the world based on assignments or orders from leading global retail chains in US, UK and European countries.[96] The EPs have to follow all specifications strictly (design and conception) mentioned in the assignments/orders placed by the foreign buyers. Viewed this way, the EP class is merely a layer of intermediary acting as 'facilitators' of global capitalist production of coir. However, foreign or other domestic capital has only indirect linkages to the industry as buyers or investors and can be at best called 'collaborators' (in terms of technical and financial collaboration) in the coir capitalist project. The foreign buyers direct the conception and design of the value added finished product. The EP class only supervises the steps leading to the execution of the final product (see section on labor control below). However, the EP class is the only channel through which the rest of the industry is linked to the global market. In other words they are the 'gatekeepers' of the industry, which in turn gives them a sense of monopolistic control over the rest of the industry. They are

[94] Due to the general export drive of the country under the structural adjustment program of the 1990s.
[95] Some amount of processed raw material (coir yarn) is also exported. Refer to Chap 5 for statistics.
[96] Like Walmart, Target, Home Depot in the US and Ikea in Europe etc.

also important from the point of view of the state economy.[97] As stated by a coir board official, -- 'the monopoly of the exporter-producers in the industry and the state's economy rests on the fact that they have control over foreign markets, technical knowhow and the potential to generate revenue through foreign investments and exchange' (interview excerpt from fieldwork).

The EPs obtain processed raw material (coir yarn) from small producers of yarn in Kerala as well as from Tamil Nadu for production of advanced finished goods in their factories. They also subcontract part of the basic finished good orders (like semi processed mats) and part of the value added 'finishing' jobs (that entail enhanced value additions to a product through processes of cutting, shearing, stenciling etc. collectively known as 'finishing' job) to medium scale producers who are engaged in weaving as well as in finishing works. Partly aided by foreign capital, they invest in advanced power-looms and other advanced machineries (see chapter 5). They also employ skilled labor force (both factory workers and managerial workers) in their factories. The top 10-12 export houses in Kerala employ 300-1000 skilled and semi-skilled workers (the numbers varying in different companies) at the factory level as well at the managerial level (based on individual company profiles, eg. Karan Group and DC Mills were examined in the field). The EPs employ wage labor on a permanent basis and contractual labor for non-coir associated work in their establishments. The EPs also have research and development facilities (interview excerpts of CEO of an export house in Alappuzha).

[97] The export sector of the industry earned 105262.52 lakhs INR as value for goods exported in the year 2011-2012. (March, 2012, Coir Board Statistics, 2012).

They do not rely on coir production always and their operations are not constrained by the scarcity of raw materials. If market demand for coir is low or coir raw material is scarce at a given point in time, they resort to using other forms of substitutes in combination with coir for producing value added products:

> "We export and produce value added products for big retailers like Walmart, Target, Home Depot and Ikea in the US and Europe. PVC tufted coir mats and rubberized coir products [advanced value added products] are a specialty item for export nowadays. We do not have to rely on coir production all the time. We combine coir with jute, sisal or synthetic fibers for our products as per demand and order instructions". -- Interview with CEO of an export house in Alappuzha.

As mentioned the EPs have limited their operations only to value added finished goods sector. This decision to control only the value added sector is driven by reasons of economic profitability and capitalist competition mentioned below. By limiting their scope to value added production and subcontracting out the rest of the work, they are not only able to cut cost of production (in terms of investment in technology or labor costs) but are also able to avert a crisis of profitability when market demand is low. It is not of any concern of the big exporter-producers as to whom the work is subcontracted as long as it meets their profit requirements. The big EPs of the coir industry of Kerala are part of the national level coir exporting association of India -- Federation of Indian Coir Exporters Association (FICEA)[98] -- the headquarters of which is based in Alappuzha district.

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[98] 'It Is the Confederation of Coir and also allied products exporters of India. FICEA, under its single umbrella, has to its credit all the Exporter Associations of coir from the country namely- the Indian Coir Exporters Chamber, Indian Coir Association, Coir Shippers Council, Travancore Coir Mats and Mating Manufacturers Association and The Coir Pith and Allied Products Manufacturers and Exporters Association, which exports about 1000 crores worth of Coir and Coir Products from the country. It voices the problems and difficulties being faced by the coir industry in general and the exporters in particular. Indian coir industry is an important cottage industry contributing significantly to the economy of the major

b) Medium-scale Producers: The second tier of the owning class is constituted by a group of medium scale producers whose range of activities in terms of production of coir includes both finishing and weaving (finished goods) and to some extent spinning (raw material processing) processes. Finished goods production involves 'weaving' of basic finished products (mats and mattings), which moves into the second stage of 'finishing work' (final value added finished products). Finishing work is different from basic weaving work in the sense that they rely on additional techniques for quality enhancements of products after basic mats are produced through handloom or semi-mechanized handloom weaving (See Chapter 5).

'Finishing jobs' of value added commodities are directly subcontracted out to the medium scaled producers by the EP class. There are at least two groups of medium scale producers involved in 'finishing work'. The first group is the better off producers in this category. These medium scale producers may just be 'absentee producers' who employ workers (20-25) in their units under a supervisor's control and may not be physically present in their units most of the time. Some may not have direct connection with the industry (they may be just mere employers). They may have other sources of primary income[99] but may have diversified into value added work due to its recent market demand.

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coconut growing states and Union Territories of India' (Federation of Indian Coir Exporters Associations Business Development Centre, Alappuzha).

[99] They have primary income sources from employment in the service sectors or incomes from agricultural sector.

> "We do orders for the Karan Group.[100] They hand us assignments for stenciling, shearing and other finishing jobs. Most of the work is done in our unit. But when workload is more we employ casual workers on contractual basis. Our headman [main supervisor] Madhu is the link between the workers and us. We are also part of the merchant-producer organizations as we are part of the export sector only. The big exporter producers have been a constant source of support for our businesses and for almost everything else" -- Interview with a medium scale value added unit in Thumpally, Alappuzha.

Since such finishing units are related to the big export houses only acting as their 'feeder' units, these medium scale producers express sympathy and solidarity with the exporters, as their own interests are tied up with the profits of the exporters. The medium scale producers have their own associations (eg. All India Coir Manufacturers Federation based in Alappuzha) affiliated to FICEA (mentioned above). They are relatively insulated from the interests of other classes in the industry except for any matters that concern their own business. They employ casual semi-skilled to unskilled wageworkers (10-20) per unit on a casual basis or often subcontract work at piecemeal rates to workers working from households. As they work for the exporters, they also do not have to rely on coir work alone and can diversify their production in non-coir commodity production. Thus there is a regularity and certainty in the supply of work:

> "Gone are the days when coir yarn used to be a big export item. Nowadays preferences are for value added products. We receive work orders for big companies. Our work orders are almost on a regular basis. I would say diversified coir products are in great demand. Production of coir fiber has declined considerably in Kerala in recent years. But then, now coir fiber can be imported from Pollachi in Tamil Nadu. We therefore do not have to rely on the raw material [fiber, yarn] produced in Kerala. We cannot serve global customers if we have scarce resources" -- Interview with the owner of a subsidiary finishing unit at Thumpally, Alappuzha.

The other group of medium scale producers engaged in finishing work were propertied independent traditional weavers (they used to work at home using their own means of

[100] Leading Coir Export Goup in Kerala. Owners of Alappuzha Company, Kerala Balers and William Good Acre. Ravi Karunakaran (the founding owner of these companies) was also the former director of the Industrial Development Bank of India.

production and sell their products on their own) before, but now -- by expanding their scale of operation in response to the rising demand for value added coir products since the 1990s -- have become medium scale producers and hire workers in their units. They may or may not continue to remain independent weavers as before. For those who continue to be independent weavers other than owning finishing units, the amount of labor invested in and income earned from finishing work is less compared to their weaving work. Also, the volume of value added work they can obtain at a given time depends on favorable market conditions (surplus jobs available after the feeder units have extracted their share).

There are again two other groups of medium scale producers engaged in 'weaving work'. The first group consists of a property owning class who are relatively less affluent than the medium scale producers engaged in finishing works mentioned above. This property owning class consists of the independent traditional weavers who use their own labor and means of production to produce their own goods for sale in the domestic market or to the exporters. Some weavers who acquired plots of land after the Land Reforms in 1974 established their own weaving units in the yards of their houses:

> "My father acquired 10 cents of land after the Land Reform Act in 1970. We were coir weavers but we did not have our own handlooms. We were also seasonal agricultural workers but income was not sufficient. So my father mortgaged part of our land to get hold of two handlooms and we employed two more workers. My mother used to spin with my sisters. I got back our land after my father died. Now I have expanded our weaving unit with another handloom." -- Interview with a weaving unit owner at Muhamma, Alappuzha.

> "We started coir production on our own in the seventies. Getting hold of land provided space for small cottage enterprises like coir production for many in our village because other than growing small-scale crops we could not do any type of large scale agriculture in such small land holdings" -- Interview with Worker/producer household in Punnapra, Alappuzha.

With increasing market instabilities, a smaller domestic market for coir products and capitalist competition, these weavers are finding it increasingly difficult to continue working independently. Consequently, these weavers now rely on subcontracted orders from the EP class made available to them through subcontractors.[101] They hire additional wageworkers (6-8 workers) occasionally when work is abundant, but mostly work on their own through family labor. Alternately, these independent weavers also work for other medium scale subcontractors (who may have a weaving unit), when they cannot find work on their own or are financially distressed. These subcontractors are not professional weavers but employ weavers in their unit. In such cases, the weavers are remunerated on a piecemeal basis (paid for number of mats produced). There is a second group of medium scale producers/weavers who combine activities of processing raw material (spinning of yarn which is normally the activity of small-scale producers) with weaving activities and are therefore partially engaged in the raw material sector of the industry as well. These producers/weavers diversify into the raw material sector as a subsidiary source of income when weaving work alone does not contribute sufficiently to household income. However, very few medium scale producers produce their own raw material (yarn) for their weaving purposes. They instead obtain yarn from small producers of yarn as well as state run co-operatives. The weavers (both categories) who work in independent units use one to two small handlooms for weaving mats. Very few

[101] Such work orders for subcontractors are known as 'third party' orders in the industry. The first party here means the medium scale producers/weavers themselves who control their own production processes and sell their own products independently, the second party is often referred to co-operative work or state sponsored work orders.

medium scale producers in the field had more than one-two mat handlooms. The medium scale producers engaged in weaving work also form their own producers' co-operatives under the support of the state.[102] Their co-operatives are called 'manufacturing societies' and comprised of 20 to 30 medium scale producers of mats and mattings (Coir Board Report, 2008). Such co-operatives have larger working capitals (20-25 lakhs) and have 7-8 handlooms and semi-mechanized looms (as seen in field). The producer's co-operatives have one to four manual looms (one loom each for one or two workers) and in some rare case, semi-mechanized matting power-looms.

Some traditional weavers have also formed self-help groups of 10-15 members with the availability of government aided micro-credit loans. Several such groups then form medium scale producers' community level groups or co-operatives. These co-operatives then become part of 'cluster organizations'[103] of export oriented rural

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[102] The current structure of the co-operative system is based on the structure set up in 1972 under the administration of the Kerala State Co-operative Marketing Federation (COIRFED), which is the apex body of the co-operatives working in Kerala. There are six types of co-operative societies in the industry: 1) Primary Co-operative Societies which are the worker's yarn co-operatives 2) Manufacturing Societies of the medium scale producers engaged in weaving and finished goods production 3) Small-scale producers co-operative societies in the spinning sector 4) Husk procurement and distribution societies of the tiny husk producers 5) Fiber societies 6) Coir Co-operative Coir Marketing Federation which markets products of small and medium scale producers in the internal market or to exporters(Coir Board Report, 2011). Most co-operatives are comprised of 20 to 30 members with additional staff for managerial work. Every society has a president and the secretary, the former sometimes elected from the local government bodies (Field Work). Many co-operative societies are under the control of local political parties (see Rammohan, 1999) and workers may be members of such parties. Major problems faced by Co-operative Societies at present are: 'product pricing is lower in relation to cost; production is not commensurate with deployment of manpower; unable to compete with products from other States and inadequate availability of fiber ' (Coir Board Report, 2010: 26)

[103] Clusters are urban and semi urban agglomerations of small and medium scale industries (SME) which are part of larger Special Economic Zones (SEZ)s. In the coir industry the cluster program is led by Cluster Pulse, an Indian Standard Organization (ISO) certified economic development agency which works with the twin objectives of market intervention & technology up gradation in SME's. The cluster program in

industries, which are tied to urban exporters and big producers at a regional level (here comprising all the states of south India). However constant dependence on the big coir exporters, lack of an expanding domestic market and reliance on a long stream of middlemen for credit linkages (even for government sponsored micro-credit loans) and marketing of products, make them frequently susceptible to various forms of exploitation leaving them with less or hardly any profit margin:

> "We cannot bear loss. It will completely wipe us out. Everything is based on credit [even government loans are only partially subsidized]. Most of us have started with small self-help groups of our own and ended up in loss when demand for coir goes down. As they say when demand goes down it is a buyer's market. We have to be very careful. Everything depends on performance and productivity" -- Interview with Owner (not weaver) of a weaving unit in Pathirapally, Alappuzha

The co-operative sector is also crisis stricken. Before the de-regulation of the coir industry a weaving co-operative could provide work for 20 to 30 workers in their establishments (Isaac, 1990). Post deregulation and the mushrooming growth of un-registered units, there is a fierce competition for subcontracted work and enhanced infrastructure to increase productivity, which most small-scale co-operatives cannot afford. So, co-operatives (mainly of those producers who employ workers but do not work themselves) subcontract or rather distribute work to household units of weavers at piecemeal rates. As one of the co-operative president at Chengada village in Alappuzha said:

> "Subcontracting work has become much cheaper than paying members the minimum wages. We cannot pay monthly wages to our co-operative workers (the small producers) so work on piecemeal rate is more sustainable. A small or medium scale co-operative unit cannot afford to

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India is part of the 11 and 12th five year plan and is aimed at upgrading efficiency of SMEs in export oriented production (www.clusterpulse.org)

> invest a lot in expanded machinery for production and cannot sustain without it" – Interview with Owner of a Producer's Co-op in Aratavazhi in Alappuzha.

The Kerala state public sector also undertakes medium scale production of finished coir goods in factory-based production processes for sale to the exporters. The state is mainly an employing class in this context. There are two state-sponsored organizations for production of finished goods -- Foam Mattings (India) Ltd. and Kerala State Coir Corporation Ltd. These organizations purchase basic processed goods (mats) in semi-finished form from the independent medium scale producers/weavers and produce finished goods for sale to the exporters. They also market products of the medium scale producers' co-operatives to the exporters (Coir Board Report, 2010). These state-run public sector enterprises employ and support up to 4 lakh[104] coir wage workers directly (in their factories and co-operatives) and 20 lakh people (through sponsors or aids[105] to independent household weavers outside the co-operative sector) connected to the industry (Coir Board Report, 2010). Since the late 1990s, these enterprises are facing crisis of profitability.[106] The state-sponsored coir organizations, which started as large-scale enterprises in the past have now transformed into medium scale operations: state enterprises have big factories and showrooms, but their profit margins are far from that of the big EPs. These enterprises cannot compete with the big exporters in terms of means

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[104] 1 Lakh/Lac is equivalent to 100,000 units/million and 1 Crore is equivalent to 100,00,000 units/10 million.

[105] Aid for purchasing machines, raw materials, utilities, infrastructure etc.

[106] 'Foam Mattings was working on loss from 1980-1992. From 1992- 93 to 1999- 2000, the company made profits. Again between 2000-2001 and from 2001- 2002 there were losses, although the losses were less in 2002-2003. The major problems of the company leading to poor financial performance are reported as management related aspects, unfavorable industrial relations, lack of co-operation among staff, overstaffing, political interferences, etc. Major problems attributed for Coir Corporation loss is due to high labor cost and problems due to existing purchase price system' (Coir Board Report, 2010: 23).

of production, productivity, quality and output. The recent cuts in government budgets and subsidies since 1990s have further complicated issues which have rendered many such organizations and co-operatives dysfunctional (Coir Board Report, 2012). Deregulation of the industry (withdrawal of state support, removal of price protection and withdrawal of other forms of intervention) has undermined the efforts of the state to provide support to medium and small-scale units through its various programs. Also lack of domestic demand for coir makes such conditions worse.[107]

c) Small Producers or Semi-proletariats: The small-scale producers form the lowest rung of the independent producing classes and form a significant bulk of the coir industry.[108] They own some means of production (spinning wheels) but are hired by subcontractors in exchange for wages. This way, the class character of the small producers is semi-proletarian in nature. They belong to the traditional class of coir spinners in the industry. Their activities are limited to the raw material processing of coir yarn spinning as well as procuring husks for fiber extraction. The relatively better-off

[107] As generally observed in the course of fieldwork, coir has limited use in the internal market, generally used for household use or agricultural purposes in lesser quantities[107] (in the form of coir ropes used for packing purposes, fibers for agricultural or industrial use). Also, these types of coir products are of low value in terms labor or technological inputs (generally products of the raw material extraction section of the industry) that makes it very inferior in quality compared to the exportable finished goods. Also, since coir has always been produced for export, bulk of the processed raw material (yarn) or semi-processed goods (like mats) are earmarked for export purposes, which leaves very less opportunity for entry into the domestic market. Also as Isacc adds, only periodic exportable 'rejects' (rejection of finished goods as mentioned above) enter the Indian market and therefore the purchase price for these commodities are very low (Isaac, 1982: PE 22).

[108] Data on the exact number is not available due to the informal nature of these producers. A rough estimate can be calculated based on the number of the small producers and primary co-operative societies (See Appendix 5.1)

sections of small producers own spinning wheels (manual or semi-mechanized wheels). As seen in the field, the small producers operate from independent household units with very little land (10-12 cents).[109] The 'hut-men dwellings' of the small producers comprise of the house in which they live and small work-shed in a corner of their backyard where they install one two spinning wheels for 3 to 4 workers. Households having more than one manual or mechanized wheel employ family labor but occasionally hire additional wage labor for cash or even kind. They also distribute work among the 15-20 members of their co-operatives. They buy fiber from local husk merchants or import it from Pollachi in Tamil Nadu on credit. They then sell the products in the markets to dealers or agents through whom they secure subcontracting assignments. Alternatively, subcontractors distribute fibers to co-operatives that are redistributed to the workers in a new rendition of the traditional 'put out' system. Some small producers (at a tiny scale) are also engaged in husk extraction and defibering processes (processes that extracts raw material or fiber for processing into yarn, See Chapter 6) along with yarn spinning work. If a household has a pond in the backyard they may engage in *retting* or defibering of coconuts from their own yard.[110] Some small producers may lease a wheel to produce yarn independently or work in the wheels of the relatively better off sections of this class (based on field observations and interviews).

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[109] This is the average size of landholding that most small coir producers have acquired after the Land Reform Act in Kerala in 1972. (Based on fieldwork interviews).

[110] But they are increasingly unable to do so as the current environmental regulations forbid such processes without adequate environmental measures.

In terms of ownership and control, the small producers engaged in raw material processing and extraction (yarn production or defibering), are the most vulnerable and distressed of classes in the industry. Although they have partial control over the means of production, they do not control what and how much they produce or sell products, as they are entirely reliant on subcontracting orders from yarn dealers (intermediaries who subcontracts orders for the big exporters-producers and better off medium scale producers). They are paid in piece wage rates for the amount of yarn they have to spin in a day as fixed by the subcontractor and additionally over the fixed amount. The small producers are heavily dependent on credit and prior to the de-regulation of the industry, were completely dependent on government-subsidized credits for their operations. Post-deregulation, although the government subsidizes machines and other equipment, they still have to buy these on their own credit. As a result they have to take loans from local moneylenders or informal credit agencies at high interest rates. And with the withdrawal of state from protection of 'floor'[111] prices, they are increasingly finding it difficult to compete with yarn producers from the neighboring state of Tamil Nadu:

> "Earlier coir yarn production and weaving were exclusively done in Kerala. Now, new units for yarn production and weaving are coming up at Tamil Nadu and Karnataka. These production processes are encouraged by the big producers to cut labor costs or avoid paying minimum wages as well to keep labor struggles at bay" -- Interview with government project officer in Punnapra, Alappuzha .

Because of their distressed circumstances and vulnerability, the small producers are constantly on the look out for subsidiary sources of income (both within and outside

[111] Floor prices are government-imposed limit on how minimum price of coir yarn and products.

the industry) as more often than not, their income from producing coir yarn does not constitute a living wage except at times when market conditions are in their favor. They even diversify their income sources by working as seasonal agricultural laborers or in other village industries and in various other forms of non-agricultural works like construction, domestic help etc.

Some small producers have formed self-help groups with the help of micro-credit like the medium scale producers. However, the sustainability of these units depend on loans -- which are made available based on productivity and performance (because of the lack of the ability of these producers to offer collateral in exchange for loans). Most small producer households are so poor that they often use the loan money for their immediate material needs and cannot repay with products on time (As told by District Manager for NABARD, Alappuzha, the organization responsible for the micro-credit program-Kudumbashree). Under these circumstances, the small producers are increasingly joining the ranks of the working class, dividing their time between coir work for themselves and others as well as other multiple part-time sources of income to earn a living wage.

d) Workers: The workers constitute the base of the class pyramid in the coir industry. Workers in the coir industry can be defined as those skilled and semi-skilled workers who work through different work arrangements (permanent factory wage workers, day wage workers, seasonal workers, casual/temporary workers, family workers who work for payment in kind) in the raw material as well as the finished good sectors of the coir industry. Historically, the coir workers during the colonial period were drawn

from the landless agricultural households[112] (Heller, 1999) and now they are part of a 'floating' [113] reserve army of workers in the coir industry. Employment of surplus workers in productive activity is at the beck and call of the market changes in the coir industry. Market based demand for coir products can periodically increase the demand for the surplus workers in the industry in specific occupations (weaving or spinning) when work is abundant. However, increasing market instability in recent times has pushed a significant part of the workforce from the different sectors of the industry to be part of an industrial reserve army of labor -- their numbers are increasing in proportion to opportunities for productive employment within the industry. Recent forms of technology driven unemployment as well as the fact that most workers are unskilled and semiskilled and are not equipped to find work outside the industry add to the growing reserve of surplus workers. The skilled coir workers are employed as factory workers in export production facilities of the big EPs as well as in state sponsored establishments. Their skill levels are not traditional but acquired through training to run machines and do finishing works. An educated group of workers is also hired at the managerial positions in export houses and state enterprises.[114] The medium scale producers, who are skilled weavers themselves, also employ other skilled weavers in their units. Some of these

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[112] With the commercialization of agriculture in Kerala since the British period and the capital intensiveness of crop patterns (Jeffrey, 1984:) it can be surmised that large number of landless laborers were thrown out of agriculture into the non agricultural sector (based on fieldwork interviews).

[113] As Marx said: "In the centres of modern industry – factories, manufactures, ironworks, mines, &c. – the labourers are sometimes repelled, sometimes attracted again in greater masses, the number of those employed increasing on the whole, although in a constantly decreasing proportion to the scale of production. Here the surplus population exists in the floating form" (Capital Vol I, 1867: 794).

[114] In state sponsored Research and Development Institutes as scientists, researchers, etc.

workers are hired as wageworkers whereas some work as family workers for exchange of cash or payment in kind (field observation). The rest of the huge reserve of semi-skilled and unskilled workers are employed in the technologically backward raw material extraction and processing activities. Except for those semi-skilled and unskilled workers who are owners and workers in husk co-operatives[115], others find employment under informal arrangements as casual, part-time, seasonal or family workers hired by export houses, medium scale producers as well as small producers for wages or kind. The landless/property less workers in the coir industry comprise 85 to 90 percent of the workforce (Coir Board, 2008). With the growth of the informal surplus labor market, there is also a tendency of under-employment of workers who are unable to find regular employment opportunities.[116]

e) Trading Class: A chain of intermediaries in the form of a trading class links the different classes in the coir industry as shown in Figure 5.1. These intermediaries may or may not have direct role in the production process and may not be directly associated with the coir industry. Those that are directly linked to the industry are the various subcontractors, dealers or agents (known as *'Muppans'* in Malayalam) who link the big EPs to the number of medium scale and small producers in the finished goods or raw material sector. This class operates at multiple levels -- at the first level they are

[115] These are the tiny producers who are also workers. They form small husk societies.
[116] A sample survey of 13, 700 coir workers revealed that only 18.9 percent comprised of the small producers and workers found employment for 250 workdays in a year. (CSES, 2008)

employed by the big EPs to subcontract finishing or weaving works to medium scale producers. I also discovered during my fieldwork that some registered and unregistered dealers who called themselves exporters are not actually directly involved in exporting. They are rather small traders or dealers acting as intermediaries between the big exporters and medium scale producers. These traders/subcontractors sometime advance working capital to these medium scale producers as credit and buy their products for sale to the EPs. At the second level, they form the link between the finished goods and the raw material sector of the industry. Here intermediaries act as subcontracting agents -- in the form of 'yarn dealers' -- between the big EPs and medium scale producers of finished goods on the one hand and the small producers of raw material (yarn) on the other. They buy yarn for cheap and sell it at a higher price to the finished goods sector and extract a commission. Some medium scale producers who are engaged in weaving work by employing weavers but do not work for themselves also count as subcontracting intermediaries as mentioned above. At the third level, they act as the 'husk dealers' and procure husks from coconut growers and sell it to the small fiber producers. Sometimes, a coconut grower may also be a husk trader. These coconut growers or 'copra merchants' do not have direct linkages to the coir industry except for some who may set up commercial defibering units (for extraction of fiber from coconut husks). Some of them are landowners. Since they sell husks for subsidiary income, they do not share similar interests as the medium scale or small producing class in the spinning or weaving

sector.[117] They often sell their husks to 'depot owners'[118] who are the traders between the raw material and the husk markets. These depot owners also used to set up defibering units commercially (before they were banned). Some government agents[119] also act as middlemen between small producer's co-operatives in the raw material sector for marketing their products in the finished goods sector. These various traders/dealers engage in illicit practices (in terms of unequal price monopolies etc), are unaccountable in terms of numbers (as they work informally) and earn their profit through 'commissions' extracted from part of the price/wages they pay to the medium scale or small producers. Different informal credit organizations (like chit funds[120]), local moneylenders and marketing organizations are also intermediaries who are indirectly related to the coir industry. These intermediaries are locally known as 'factors' in the industry (Isaac, 1990).

Although these traders do not control the means of production or the overall production process, they have localized indirect control over the means of subsistence of the medium and small producers due to the dependencies of these producers on them for

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[117] For these husk traders, maintaining a high price of raw material is for the sake of their own profit.

[118] The 'depot' system which was a joint venture of intermediaries was legally banned under Minimum Wage Legislation acts of Kerala due to their price monopoly outside the minimum price range. However, they still persist illegally in most places.

[119] Intermediaries in the form of Coir project managers or agents.

[120] According to Section 2(b) of the Chit Fund Act, 1982, "Chit means a transaction whether called chit, chit fund, chitty, kuri or by any other name by or under which a person enters into an agreement with a specified of persons that every one of them shall subscribe a certain sum of money (or a certain quantity of grain instead) by way of periodical installments over a definite period and that each such subscriber shall, in his turn, as determined by lot or by auction or by tender or in such other manner as may be specified in the chit agreement, be entitled to the prize amount" "Chit Funds Act, 1982". Financial Intelligence Unit, India. See Oomen, (1976), Klonner (2002) for 'chit fund' in the Kerala context. Oomen (1976) says this type of chit fund organizers were the pioneers in small 'joint stock' companies in Kerala.

work. Historically, the class of intermediaries resulted from competitive strategies and inter-capitalist rivalries between the big producers to cut labor costs and control the working class (Isaac, 1983). The need for 'relative' profit maximization (from the viewpoint of the employers) and need for surviving in a capitalist economy (from the viewpoint of small producers and workers) creates horizontal competition between members of the same class in the industry. This trading class lives off on part of the surplus produced in the hands of the different classes (mainly the medium scale and small producers and workers) through usurious practices by playing these classes against each other in competition for availability of work and profit:

> "There is a total dependence of the medium scale (weavers) and particularly the small producers and workers on the contractor or subcontractor for work. This gives enormous advantages to the later based on which he employs different methods of exploiting these dependent classes. These methods may be in the form of depressing wages or intensifying work or extracting illegal commissions, all based on the assurance that he will provide more work and better income opportunity to one small producer or worker over the others. These middlemen also create an environment of mistrust between members of the same group, which reflects in disagreement over co-operation for work between workers"-Interview with Ex-coir project coordinator, Alappuzha.

The presence of these traders in the form of subcontracting agents is one of the many possible explanations for the persistence of small and tiny production units in the coir industry.[121]

[121] Lenin quoted Marx on the persistence of merchant and usurer's capital in the rural economy that retards the disintegration or differentiation of the peasantry-'The independent development of merchant capital is in inverse proportion to the degree of the development of capitalist production...the greater the development of merchant capital, the smaller the development of industrial capital...and vice versa' (Marx cited by Lenin, 1956: 186).

5.4. Methods of Exploitation in the Coir Industry:

Various forms and methods of exploitation are implemented in the coir industry for realization of surplus value, in both its absolute and relative forms.[122] Exploitation happens at multiple levels following the class hierarchy with each hierarchically superior class exploiting the labor of the class below them. The main methods of exploitation and labor control in the coir industry are mentioned here briefly:

a) Lengthening the Working Day: Surplus value is extracted by intensification of work and lengthening the working day. Although factory workers are under the control of the big producers, they have a more or less fixed working day of 8 hours 6 days a week (based on factory legislation reports, 1991). However, workers work for prolonged hours during periods of high demand. It was also seen during fieldwork, that workers also work in shifts in most factories and in some cases the same worker works for double shifts with one or two hours of gap between the shifts. The choice to overwork is partly informed by workers' vulnerabilities:

> "There are many skilled workers ready to work for less due to shortage of factory based employment opportunities. Factory based jobs are hard to come by as they offer relative stability regarding wages and income. Competition is brutal, so we promise our employers we will work more and efficiently. They don't need to hire new workers for the additional shifts but the wages should be the same for all shifts. The employers also do not want to invest on training (for operating machines) new sets of workers. So they agree. But they also know how to tie us to them based on such agreements" -- Interview with Striking workers in Cherthala, Alappuzha.

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[122] Surplus value is the product of surplus labor -defined as that part of the working day when a worker produces more value (socially necessary labor time in the production of a commodity) than the equivalent of his/her wages (Marx, 1867). Absolute surplus value is achieved by increasing the amount of time per worker in a working day-" The prolongation of the working-day beyond the point at which the labourer would have produced just an equivalent for the value of his labour-power, and the appropriation of that surplus-labour by capital, this is production of absolute surplus-value" (marx, 1867:645). Relative surplus value is however achieved by shortening that part of the socially necessary time equivalent of wages by increasing the productivity of labor (Marx, 1867).

On the other hand, non-factory workers (weavers, spinners and defiberers) mostly work in households under informal work arrangements (in value addition work, weaving or spinning work) and are employed by medium scale and small producers as well as the commercial co-operatives. Since they are paid on a piecemeal rate per piece (jn terms of finished product) or specific amount (in terms of raw material) produced, the total wages they can earn in a day depend on how much they can produce in that day. This logic of producing more to earn more along with the fact that there is no limit to a working day due to the informal nature of household- based coir work, subject these workers to a self imposed[123] prolonged working day. They therefore work throughout the day (10-14 hours) without track of hours worked:

> "The subcontractor I work provides me with fiber to spin yarn. He has no specific demands other than the fact that the quality of yarn has to be good. He does fix the amount I have to produce in a day. It is then up to me how may hours of work I put into or what techniques [in terms of spinning wheels etc.] of production I use to produce the desired amount of yarn in a day" -- Interview with a Household Spinner in Kollam.

Employers also take the advantages of the absence of travel time in a working day in the case of workers working from home to reduce production cost. Such conditions of work is also the same for those independent less affluent medium scale weavers and struggling small-scale spinners who may or may not employ wageworkers in their units rely on their family labor for production. Even when they hire wage labor, they have to prolong working hours to meet the estimated goals in a day, as they are responsible to a subcontractor through whom they secure work orders.

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[123] Self -determined because they work in their own household under their own self imposed conditions. They are solely responsible for the total output produced to the subcontractor who provides work for them.

b) Depression of Wages: There are several ways in which wages are depressed in the coir industry. First, informal work conditions in household based work allow for evasion of factory based regulatory laws and stipulated minimum wage payments fixed by the government. Workers in an informal unit are hired without any contractual agreements and employment is largely casual in nature. Since workers compete with one another for getting employed in such units (as work is not easily available) and also as they are subjected to the vulnerabilities of loosing their jobs, they give into the arbitrarily determined low wage rates through informal work arrangements with the sub-contractor. Second, the nature of home-based subcontracted work is based on the premise that it would allow for cost cutting strategies which is not possible in a regulated factory based setting. Factory workers in export-based production facilities enter into legal contracts with their employers and have the right to bargain, resist and negotiate wages and conditions of work. While the big EPs can accommodate such work conditions in their factories, they cannot risk higher wages at an extended scale for the rest of the industry, which is detrimental to their profit accumulation motive in the long run:

> "Although they [EPs] do not control or depress wages directly, they ensure that inputs supplied to them in the form of raw material etc. are lower in price. By subcontracting work out they pass their risks and obligations to a middle-scale employer or subcontractor at lower costs and in turn the subcontractor for the sake of his own profit pushes the wages of workers as low as possible" -- Interview with Ex-Government Coir Project Officer, Alappuzha.

Third, subcontractors (middle scale employers) or various forms of traders/dealers control the flow and availability of weaving or spinning work available at a given point in time in the industry. Availability of workers in surplus, preference of the subcontractors

to hire through family, kinship or other forms of personal relations, and the dependency of workers and distressed medium and small scale producers on the subcontractors for work allow for wage rates to be compromised on the part of the workers. Fourth, volatile market conditions put pressure on employers to stay within profitable margins which they can achieve by cutting costs through wage depression. If market conditions are unstable at a given time, work becomes more and more less available. The struggle for securing work on the part of vulnerable workers allows employers to bring down the wage rates over time. Once a low wage rate prevails over a period of time (over a couple of years), it becomes a norm based on which wages are generally negotiated further. Such low wage rates become un-surmountable given the employment insecurity of workers. All these aspects have made the coir workers the lowest-paid strata in the industry:

> "Informal work arrangements help evade minimum wage payments in medium or small-scale factories (field observations). The subcontractor will only employ workers if they agree to wages lower than the current minimum wages. Working for relatives [who are employers] often leads to payment in kinds or 'agreed' cash money rather than wages. Workers may have obligatory reasons to work for their relatives [past debts, family obligations etc.] Piecemeal nature of wages is another concern. Such wages are arbitrarily determined[124] by the subcontractors rather than following a minimum wage. And workers give into lower wages just to stay afloat for minimum subsistence, rather than remain unemployed." -- Interview with different coir workers in Muhamma Village, Alappuzha

There are also instances of generations of workers working on 'mutually agreed wage' for some medium scale producers or subcontractors to pay off debt or loans left behind by parents:

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[124] Balakrishan (2005), end note on Vandy (or coir bundles) in Chapter II: 93.

> "My father had left some debt with my distant uncle (owner of the unit) before he died. We are traditionally coir weavers. So, I help my uncle some days of the week. Rest of the days I work in the paddy fields or domestic work" – Interview with weaver in Thuravoor, Alappuzha.

Such mutually agreed low wages are not paid immediately (sometimes paid over several installments by the employer) and lowers the wage rates in a coir region or village over time. More recently, the crisis of raw material supply has put pressure on employment levels in the industry increasing trends of underemployment. Localized monopolies are created in the raw material market both as an outcome and determinant of the current shortage of coir fiber production in the industry. Such monopolies lead to hike in the prices of the raw materials, which are not economically viable for the small producers. The strategies to overcome such circumstances (importing raw material at higher prices from other places outside Kerala) lead to rise in cost of production, which threatens the sustainability of small-scale units and result in decreasing opportunities of employment for workers. Under such conditions, a worker accepts lower wages rather than losing their jobs. Also, as seen in the field, employers (sometime inadvertently) depress wages of their workers as a significant part of their income goes into paying commissions to intermediate traders to secure subcontracted work assignments. Distressed small producers whose share of profit is depressed due to bad market conditions, due to extraction of a significant share of their profit by middlemen or due to impending debts, end up passing their share of crisis to workers (mostly extended family members) by forgoing wage payments for payment in kind.

c) Other Methods of Exploitation: The process of subcontracting and presence of intermediate traders at different stages of production accentuate the exploitation process in the industry. These traders extract commissions often above prevailing market price at different stages of production: a husk dealer will extract commission from small scale defiberers for selling their products (fibers) to small scale yarn spinners and co-operatives. At the second stage a yarn dealer will extract commission from small-scale producer of yarn for mediating the sale of their products with medium scale producers. Subcontractors/supervisors (*muppans*)/agents of the export houses/or small traders may act as commission extracting middlemen between independent weavers or medium-scale producers for providing them with work assignments or for mediating the sale of their products to the exporters. Alternately, a subcontractor will extract commissions but also exploit workers by practices of petty pilferages.[125]

> "For instance, if an export houses places an order of 100 kgs of yarn for a fixed rate with a subcontractor, the latter will extract 22 kgs of yarn (for example) at the price of 20 kgs from the workers above the additional commission he extracts from both sides (exporters and workers). The surplus 2 kgs will be then be sold by the subcontractor directly to another exporter at a higher price or may be held on for a period of time when the market price of that yarn increases based on the demand for that yarn. The same logic applies with the fiber dealer or commercial retter. The holding back of fiber for speculative reasons is one of the many causes for scarcity of white fiber [raw material] in the industry" - Interview with former Coir-Project Officer, Punnapra, Alappuzha.

[125] Cf. Isaac, 1990; Balakrishnan, 2005.

5.5. Labor Control in the Coir Industry:

There are various mechanisms of labor control in the industry: simple processes of supervision, technical control through the possible use of mechanization to de-skill and displace workers, administrative control in the co-operatives of the small producers and workers, consent formation through ideological practices and newer forms of control through the creation of self-help groups. Labor control is essential for increasing efficiency and productivity of labor as well as keeping labor vulnerable.

The big factories are under pressure to control and discipline their labor. Fieldwork sources revealed that the design, product conception and financing of value added assignments are directly controlled by foreign companies. Quality of products is therefore a great factor. Sometimes, entire assignments are rejected on the grounds of flawed production. A Chief Executive Officer (CEO) of a big export house in Alappuzha said thus:

> "We have to take great care that the production meets the demands of our customers. Repeated rejections or dissatisfaction may come in the way of future prospects. So, disciplining labor and seeing that production is carried out to meet the requirements is absolutely essential" -- Interview with CEO of an Export house in Alappuzha.

Accordingly, the EPs often employ supervisors in factories to monitor work. Each worker is answerable to the supervisor who is his immediate boss. The supervisor in return keeps an eye over the day's targeted outcomes. While factory workers are disciplined through formal factory settings and guidelines, the medium scale producers who employ daily wageworkers for weaving work implement simpler forms of labor control strategies in a

less informal manner although this way he has a direct control over the labor process. This form of supervision is built through a sense of familiarity with the workers:

> "There is a need to keep an eye on the workers in the unit. If not watched, they end up taking small breaks, which means they get together to chat and talk. This may go on for a long time if not interrupted. Often, I hang around the work shed, help them with some work, keep an easy conversation with the workers etc. just to let them know that I am around. We can do only so much work a day. There is no time to waste." -- Interview with Owner of a weaving unit in Pathirapally, Alappuzha.

The big factories also use technology to discipline labor. Control over labor through technological use is a more strategic form of control on the part of the big producers:

> "Introduction of technology has been a means to discipline workers by imposing a threat of large-scale employment displacement along with aiding cutting cost strategies in the industry. Technology also acts as a divide between workers who are employed in factories [which employ large scale machineries] from workers in medium and small-scaled units who still perform work manually. Also there is technological a divide between the advanced finished goods and the technologically inferior raw material sector" –Interview with Ex-coir Worker and Ex-Coir Co-operative President, Alappuzha.

Workers are also subjected to technological driven unemployment as well as de-skilling due to the current mechanization drive in the industry. For instance:

> "If 4 workers were needed for the defibering process of raw material or 3 workers for the spinning of yarn in the traditional manual process, the machine reduces the labor of these 4 or 3 workers to the work of one worker. So, if there were different wages for a number of operations[126] performed by the number of people engaged in the defibering or spinning processes, mechanization by displacing additional workers (previously needed for the traditional method) reduces the cost of production by cutting wages. Or making an otherwise skilled worker do menial tasks with the mechanization process lowers the wages that worker was earning before the machines took their place" -- Interview with a researcher at Central Coir Research Institute, Kalavoor, Alappuzha.

Technological deskilling of workers helps employers to control wages. Wages in the coir industry vary according to the difficulty of performing a task (Labor Commisionerate, Kerala, 2010). As the difficulty level of performing a job is reduced with the help of a

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[126] Cf. Rammohan, (1999):12. Different forms of traditional practices in a defibering process includes counting of husks, ripping the fiber off husks, cleaning of husks, sun-drying of husks, bundling and head-loading for carrying raw material to the site of production. These operations had different wages for each activity. The introduction of machine has reduce such costs.

machine, wages are also reduced per worker accordingly. Technological changes are used as ideological threats to undermine collective organization of workers (see Smith, 1990; see Isaac, 1982; Kannan, 1999; Heller, 1999; Balakrishnan, 2005 in the Kerala context).[127]

Technology also acts as a divide between factory based skilled and household based unskilled labor in terms of per labor productivity. In the coir industry the distinction between skilled and unskilled labor is also perceived on the basis of the ability to operate machinery in factories. Mechanization also deskills workers and breaks their monopolistic skills over particular weaving or spinning techniques of different yarn based products (based on fieldwork observation):

> " Mechanization will (and have already) not only displace workers but destroy our local cultures too. We have so many varieties of coir yarn, each known for their special technique of production. The cultural heritage of a place used to be known after the uniqueness of the type of coir yarn that is produced in that place is produced and the communities that produced them. A place used to be also known after the type of coir it produced. Machinery reduces one and all to one uniform mechanical process" -- Interview with ex-coir worker, Alappuzha.

In a labor surplus industry like coir, technological strategies also divide workers on the basis of competition for limited wage work available in factories and create ideological divides between workers in the two sectors (technology advanced finished goods sector and technologically deficient raw materials sector) of the industry by playing up one section of workers against another based on their skill levels.

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[127] Kannan (1999) has pointed out how the capitalist class resorted to mechanization tactics to repress widespread workers' resistance against capitalists in both agricultural and industrial sectors in demand for better working conditions. In the coir industries, employers resorted to technological change as a last resort (after closing down centralized factories and subcontracting work to smaller establishments) to disintegrate trade union movements in the 1960s and 70s (Kannan, 1999: 159).

Labor control through consent formation is a common practice in the coir industry. As seen in the field, the EPs often implement this practice by keeping factory workers obliged through extra-wage financial incentives. Exporters or large-scale producers do not necessarily depend on personal contacts for hiring labor in their facilities or while subcontracting out. However, they do make use of caste/family/kinship relations indirectly through the use of intermediate traders/dealers (who are often from the same village or communities as workers) in their attempt to regulate labor relations (see Kelly, 2001).[128] Employers prefer to employ workers from the same caste to control the workforce more efficiently.[129] Workers are voluntarily tied to employers of the same caste due to their caste-based affinities, which inhibit any form of worker's resistances against exploitative conditions of labor, wages or employment as well as in most cases restrict their mobility to work outside the industry. Workers' need for extra-financial support from employers (as their own wages do not support their subsistence), serves as effective labor control strategies for the employers.

Workers are also subjected to administrative control through power-based relationships of dependency against those who occupy managerial positions in case of co-operatives. This is particularly so in the case of the workers in small co-operative societies where the president and secretaries (managerial committee) command a position of authority based on their levels of education and positions in the community. The

[128] Kelly mentions the role of village leaders/officials as an important strategy of labor control used by corporate and industrial estate managers to get access to village communities and their 'reproductive spheres and familial spheres of the workforce' in his case study of SEZs in the Philippines (2001:16-17).
[129] Cf. Kapadia, K (1999): 336.

president and the secretary of a co-operative are from the same community as the workers. However, they are privileged because of their education levels and relatively better off class status (hailing from the landed gentry) than the workers who are mostly property less (very few may posses some means of production like a spinning wheel but mostly cannot operate independently).[130] The administrators of co-operatives may also be medium scale employers having their independent units. They may also be prominent members or representatives of local trade unions and have strong political affiliation with local political parties. The president and the secretary of the co-operatives have authoritative control over the labor process and market relations of the co-operatives.[131] Workers remain dependent by choice or by force on such authoritative figures for reasons of employment, job security and other personal caste and kinship obligations.[132] They also entrust these authorities with the process of mediation between them and the market.

Feminization of labor is also an effective labor control mechanism in the coir industry. Employers prefer female workers in disintegrated informal household locations, as they are easier to control than male workers in factories.[133] Employers also accuse female workers of being less productive. This at times provides grounds for easy disposition or termination of workers, which is not possible with male workers in a formal factory based setting. Vulnerability of employment and household based gender

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[130] See Rammohan, K.T. (1999).
[131] Cf. Rammohan, KT, (1999):19.
[132] Cf.-ibid-
[133] Cf. Kelly, 2001: 13.

discrimination makes female workers docile in nature and ideal for control on the part of the employers.

5.6. Class and Non-Class (Gender/Caste Differentiation):

Class conditions mutually interact with non-class relations in the coir industry based on gender, caste and locality based distinctions. Social oppression of marginalized groups (female workers/lower caste groups) is articulated into class-based exploitation of the working class. Employment and wages are gendered in the coir industry and social categories like caste/kinship/patriarchy/family relations and community organizations play an active role in labor relations:

a) Gender Relations: About 80 to 85 percent of the workforce in the industry is comprised of women (www.coir.kerala.gov.in) but the largest concentration of women workers is primarily in the raw material extraction and processing section (spinning and retting) of the industry (Mathew, 1985; Isaac; 1990; Rammohan, 1999). Based on field observations, it is clearly visible that all the propertied members of the technologically advanced finished goods section of the industry are males (big exporter-producers, medium scale producers and most small yarn producers)[134], whereas women constitute the large base of semi-skilled and unskilled workers in the industry (with a few

[134] Very rare cases of women owners of weaving (finished goods) units were also found but their class position as female owners were conditioned by their circumstances. They hire additional wage-workers other than family labor and can be said to belong to the less affluent section of the medium scale producers although they agreed that their class status as 'medium scale producers' has become quite precarious in recent times.

exceptions[135]). In a worker's co-operative society, male members are in administrative positions (see Rammohan, 1999) and run the co-operatives in terms of decision- making and management. Women members of the co-operatives are largely dependent on the male managers for regular employment based on availability of work and marketing and sale of the products they produce. Within an ideal coir household[136], male members work in factories or as weavers, while the female members find informal jobs at the workplace of her male relatives or spin yarn for subcontractors and may or may not be formally part of a co-operative society (field observations).

Division of labor is also gender biased on commonly held perceptions of gender roles and gender divided spaces[137]:

> "Men are more active than women and are fit for mechanized work. Socially, it is the man who works outside the houses and should earn the bread for the family. So, factory work suits male workers whereas female women are more fit for household based works. We need more women to do our spinning work and fewer male workers in the factories. Machines do most of the work here, so the workforce is quite smaller in factories" -- Interview with CEO of a leading export house.

Male workers are physically more active to work due to the fact that they do not have to bear the responsibility of social reproduction at home as women do. They are also relatively more connected to other male workers and more vocal about their demands.

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[135] Among the working class, the skilled workers are male workers employed formally in the big factories or for the medium scale producer's weaving units.

[136] Defined as a household whose income mainly comes from the coir industry.

[137] Kerala's society is relatively gender egalitarian than the rest of India, which is reflected in higher literacy rates for women (87.86 percent in 2001, Census of India) and better representation of women in social and political arena. However, women are still disadvantaged in Kerala when it comes to work participation rates (lowest among major states in India, Mazumdar and Guruswamy, 2006) of women in the economically active groups in the formal sector (24.3 percent, 2001 Census of India). On the other hand, a the micro level, traditional gender based values of sexual division of labor, gender roles in economic and social activity and gender representation at the household level is still overpowered and largely dominated through practices of patriarchy and gender subordination (observation in the field). Also, see Kelly (2001) on perceptions related to gender based work in the SEZs of Philippines (2001:12-13)

This is the reason that the share of male workers in factories and the formal sector is relatively lower in the industry (considering the fact that 85-90 percent of the workforce in the industry are women concentrated in the household based raw material sector). Employment of male workers in factories is a mere necessity on the part of employers.

On the other hand coir spinning (processing of raw material) has been traditionally ascribed as 'women's work' as spinning can be done in the household. Generations of women spinners have been doing coir work in their backyards other than in workshops and co-operatives as part of 'household work'. Spinning work has also been discursively understood as feminine in nature due to less physical labor associated with it and which can be performed within the boundaries of the household. As a subcontractor said:

> "These women are in the house throughout the day and can spin coir as part of household work without even leaving the house. They don't have to devote long hours for spinning and can juggle spinning work between other domestic chores. Just by being at home rather then going for daily wage work, they can earn money and support their families"-Interview with a subcontractor in Pathirapally, Alappuzha.

This form of gendered notion of work underlines the articulation of capitalist class relation and relations of exploitation through gender differentiation in employment and wages in the coir industry. By deeming coir spinning as feminine and domestic work, female property-less (or having partial control over their means of production) workers are pushed into the homestead to be part of an oppressive informal economy. Herein, employment is irregular -- when market demand for coir fluctuates female spinners have to take the brunt of being unemployed over irregular periods of time. Work conditions are over strenuous in terms of the length of the working day etc., which is often self-imposed

due to the piece-rate wage system, as mentioned previously. Additionally, women have to bear the 'double burden' of social reproduction at home (maintaining a household, bear children and looking after the wellbeing of other members).[138] Also, living wages are far from nominal and coir spinners are the lowest paid work force in the industry (see Chapter 7). More importantly female workers are subjected to the control, supervision and dependency for employment and income opportunities on a male employer.

Despite being additional bread-earners of a household, these female workers still do not have a control over their decisions related to employment or conditions of work. A focus group interview with four different groups of female coir spinners in different villages in the field districts revealed that when it comes to decision making, the male members (husbands, sub-contractors, yarn dealers, co-operative society presidents) have a major role in work assignments, work distribution, wage negotiations etc. Most women of such groups echoed the same response:

> "We do coir work at home or the co-operative workshops. We receive our share of work, finish the assigned amount and get paid accordingly. As long as money comes in for the work done, things are okay. We don't have much idea of taking care of other details and also believe that our male members will have a better say in such matters. As they say, a man always has the last say rather than a woman's" -- Based on Focus Group Interviews with 60 female coir workers I various groups.

[138] See Giminez, M (2005): 20-21.

By being socially subordinated to men, they not only partake in non-wage labor at home[139] but also are part of a huge army of under-employed labor force in the rural areas.[140]

Gender differences are even apparent in the constitution and performances of gender segregated state-sponsored micro-finance aided self-help groups (like *Kudumbashree*[141]*)*:

> "A male self-help group is constituted of weavers in the finished goods who are directly linked to the cluster groups of medium scale producers in the finished goods sector. Self-help groups involved in the finished goods sector this way, are relatively better in terms of availability of work and overall performance and hence relatively stable. On the other hand, female self-help groups are generally constituted of female coir spinners in the raw material sector. Even when the members of a self-help group have partial control on its production process, these groups are still dependent on the market for sale of their products. Inevitably, a female self-help group of coir spinners have to rely on middlemen or subcontractors (mainly male) for marketing and sale of their products, which makes these groups no different from independent small producers or workers in the industry. Such circumstances make a women's self help group less sustainable than man's in the long run in terms of productivity and performances" -- Corroborated through interviews with government officials and self-help workers.

This is ironic, given the fact that self-help initiatives in rural areas are often vouched on notions of gender sensitiveness in term of work and wage for women's empowerment in general.

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[139] See Giminez, 2005 as cited in Das, 2012:30),

[140] Among the female coir workers who work from a household unit, although one woman gets paid per household for work done for particular employers (the co-operative societies, private producers or subcontractors/third parties) the entire household including children, grandmothers, and other female relatives engages in the production process for maximize wage per output.

[141] 'Launched by the Government of Kerala in 1998 for wiping out absolute poverty from the State through concerted community action under the leadership of Local Self Governments, *Kudumbashree* is today one of the largest women-empowering projects in the country. The program has 37 lakh members and covers more than 50% of the households in Kerala. Built around three critical components, microcredit, entrepreneurship and empowerment, the *Kudumbashree* initiative has today succeeded in addressing the basic needs of the less privileged women, thus providing them a more dignified life and a better future. Literal meaning *of Kudumbashree* is prosperity (*shree)* of family (*Kudumbam*)'-www.kudumbashree.org

Social oppression of the female workers becomes a tool for gender-differentiated access to opportunities of employment and wages in the coir industry in worker's competition with each other for a sustainable living wage (see Das, 2012). Forms of social oppression (gender bias) within the confines of the family and household, is articulated to perpetrate relations of exploitation at the workplace (through gendered differentiations of employment and wages).

b) Caste Relations: Gender is also intertwined with caste and kinship relations to reproduce class based exploitation and inequality. Historically, in Kerala, coir work was done by the lower castes. Upper caste (also the landowning class) women in Kerala (*Nair or Namboodiri*)[142] would consider coir work to be socially derogatory (Mathew, 1985).[143] Therefore, female coir workers for spinning as well as men for weaving activities were drawn from the relatively lower *Ezhava* caste[144] (Heller, 1999) during colonial era. On the other hand, raw material extraction activities (defibering or *retting*) were performed

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[142] In the caste hierarchy of Kerala, *Namboodiris* and the *Nairs* are the higher castes, followed by *Ezhava* as an intermediate castes and *Pulayas* and *Parayas* (examples) of lower castes.

[143] As Mathew points out: 'Since forward communities such as Christians and *Nairs* were traditionally landowners, the coming of more of them for employment in these industries, alternatively implies a process of alienation from land and consequent pauperization' (Mathew, 1985:8).

[144] The *Ezahva* caste is one of the lower castes in the caste (varna) hierarchy of Kerala following the Indian census defined forward (or general) castes of *Namboodiris* and the *Nairs*. Although Ezhavas performed the works associated with *Sudra* (slave) Varna they were considered as *avarna* (untouchable) by the upper caste *Namboodiri* Brahmins who formed the Hindu clergy and ruling elites in late medieval Kerala. Gough (1961) says that the *Ezhavas* of Central Travancore were historically the highest-ranking of the "higher polluting castes", but superior in status to the "lower polluting castes", such as the *Pulayas* and *Parayas*, the schedule castes as per Indian constitution. The *Nairs* and Christians ranked socially and ritually higher than the polluting castes. The Osellas (2000), noted that the reform movements of the late-nineteenth and twentieth century brought about considerable changes for the *Ezhavas*, with access to jobs, education and the right to vote, all assisting in creating an identity based on more on class than caste, although the stigmatic label of *avarna* remained despite gaining the right of access to temples.

by the lowest castes -- *Pulayas* and *Parayas*.[145] Manual labor like retting which involved the most strenuous of physical activity yet was the most lowly paid work. Upper castes *Nairs* occupied managerial positions in British factories (Balakrishnan, 2005). Later on, some prominent Nair families could take over export houses of the British in the post independence era based on their ability to diversify agricultural incomes in industrial activities like coir (based on interviews). However, some relatively affluent *Ezhava*s (mostly the landed gentry and those who acquired land after land reforms in the 1970s) could move up the social ladder as well to own export houses after the British era. So, initially although caste based social status conditioned class relations (in terms of which caste occupied property and control over means of production) in the coir industry, this was largely over-ruled in the post colonial period with the *Ezhava* caste dominating the industry in terms of the labor force and being significant employing classes.

Over time, exploitation of labor based on their caste status has taken new forms and meanings in the industry. Dynamics of inter-caste affiliations as well as kinship and family obligations are now factored into class based differentiation and exploitation between the affluent and less affluent members or between the propertied and working classes of the same caste group. The propertied classes often take advantage of caste and kinship relations over members of their same caste to depress wages and tie labor through non-wage relationships (payment in kinds)[146] as mentioned above. They also keep labor

[145] These are the lower castes or Scheduled Castes according to the Indian Constitution. The *Pulayas* and *Parayas* were previously bonded agricultural labor later being transformed into attached labor with the Slavery Abolition Act of 1855 (See George, A, 1987).
[146] Cf. Kapadia, K (1999)

docile by tying them to informal labor arrangements and by creating so called discourses of obligation and wellbeing:

> "Our Panchayat representative is a coir worker from our own community [same caste]. Now she helps us organize our 'self-help' groups and co-operative societies. She keeps telling us that our fate is in our hands and if we work really hard we can really make a lot for ourselves. It is in our hands to help the industry out of crisis. It is our industry, we all are related" – Interview with worker in Alappuzha

The working class complies to such practices in the hope of upward social mobility:

> "The workers who work for me are from the same community I belong to. We therefore share relationships outside work through family, religious organizations, community based organizations etc. This makes our work easier when it comes to mutual agreement on terms and conditions. I take care of them and in return, they help me when I need them. If we do not help each other, who will" --Interview with a subcontractor in Pathirapally, Alappuzha.

This so-called 'mutual' help in reality is highly unequal in terms of class-based relations, where the employer takes advantage of and exploits the worker based on his caste based personal relationships with them and the worker's obligation to him in return. As reflected in the interview above, caste and kinship based affiliations become instruments of ideological control on the part of the propertied class through which working class consent and compromises are generated and reproduced (field work).[147] A detailed caste based discrimination of employment and wages in the coir industry will be discussed in Chapter 8.

5.7. Spatial Structuring of Social Relations:

The geography of economic activity in the coir industry is distributed across four specific locations/districts (Ernakulam, Alappuzha, Kollam and Thiruvananthapuram)

[147] Cf. Kelly, (2001).

and to some extent other areas as well throughout Kerala. Although the bulk of the industrial activities are located in rural areas, certain processes are concentrated in urban areas as well. In other words, activities in urban areas are an extension of the rural industrial processes of the coir industry. The rural-urban distinction in Kerala is quite blurred in general[148] and rural areas are quite prominent due to high rural density of population (49 percent of the total population live in rural areas compared to 51 percent in urban areas) and big villages in terms of the population size (having population of more than 5,000 people) (Census of India, 2001).

The geographical location of the coir industry is based on the location of economic activities in certain places based on the social division of labor in the industry and the social relations of production associated with such activities. The present location of placed based economic activities of in the coir industry -- raw material extraction (defibering), raw material processing (spinning), basic goods production (weaving) and advanced goods production (value added production -- has been the outcome of various factors. The concentration of trading activities in Cochin/Kochi City (in Ernakulam) and export based factories in Alappuzha town and its suburbs followed the colonial route of trade (as major seaports) and production. All exportable finished goods in the coir

[148] The urbanization process is fairly moderate than the rest of India; the size of the urban towns are generally lower compared to the big urban cities in India; less agglomerated concentration of economic (particularly industrial) activity in urban areas; and low population concentration in urban areas (Sreekumar, 1985-86, 1990). Urban areas in Kerala are at best the size of middle towns while rural villages are quite big. The development process of urban centers in Kerala is not necessarily an outcome of large-scale industrial concentration in urban areas and their agglomerations, which is specifically the case with the prominent urban cities in India. Rather, the development of urban centers in specific places was the outcome of trade relations, and important port towns connected to international trade routes by the sea and proximity to export based traditional agro-based rural industries like that of coir (Sreekumar, 1990: 1986-87).

industry from various factory based locations converge at the export or trading centers located at Cochin City from where they are shipped to international destinations via the Cochin Port. Production relations in Cochin City are largely trading based or commercial in nature. The business classes of the major export houses are concentrated here for their commercial transactions with established and potential clients from all over the world. While Cochin is the hub of commercial activity, the actual production facilities of finished goods are located in Alappuzha district, south of Ernakulam district (where Cochin City is located). Alappuzha town[149] and its immediate suburbs (linked to the suburbs of Ernakulam district from south to north) became the nodal point of factory-based production over time. The factory-based production dominated by the exporter-manufacturer class is capitalist in nature, capitalist employers hire factory-based wageworkers in large factories. The exporter-manufacturers or the capitalist class as mentioned above specialize only in value added production (the final stage of finished goods production of coir) and are concentrated in Alappuzha town. Closer to the vicinities of the big factories are the numerous small finishing units of medium scaled nature that employ wage workers in their units. Such units are both registered (formal) as well as unregistered (informal). As mentioned earlier, these units are spill over processes

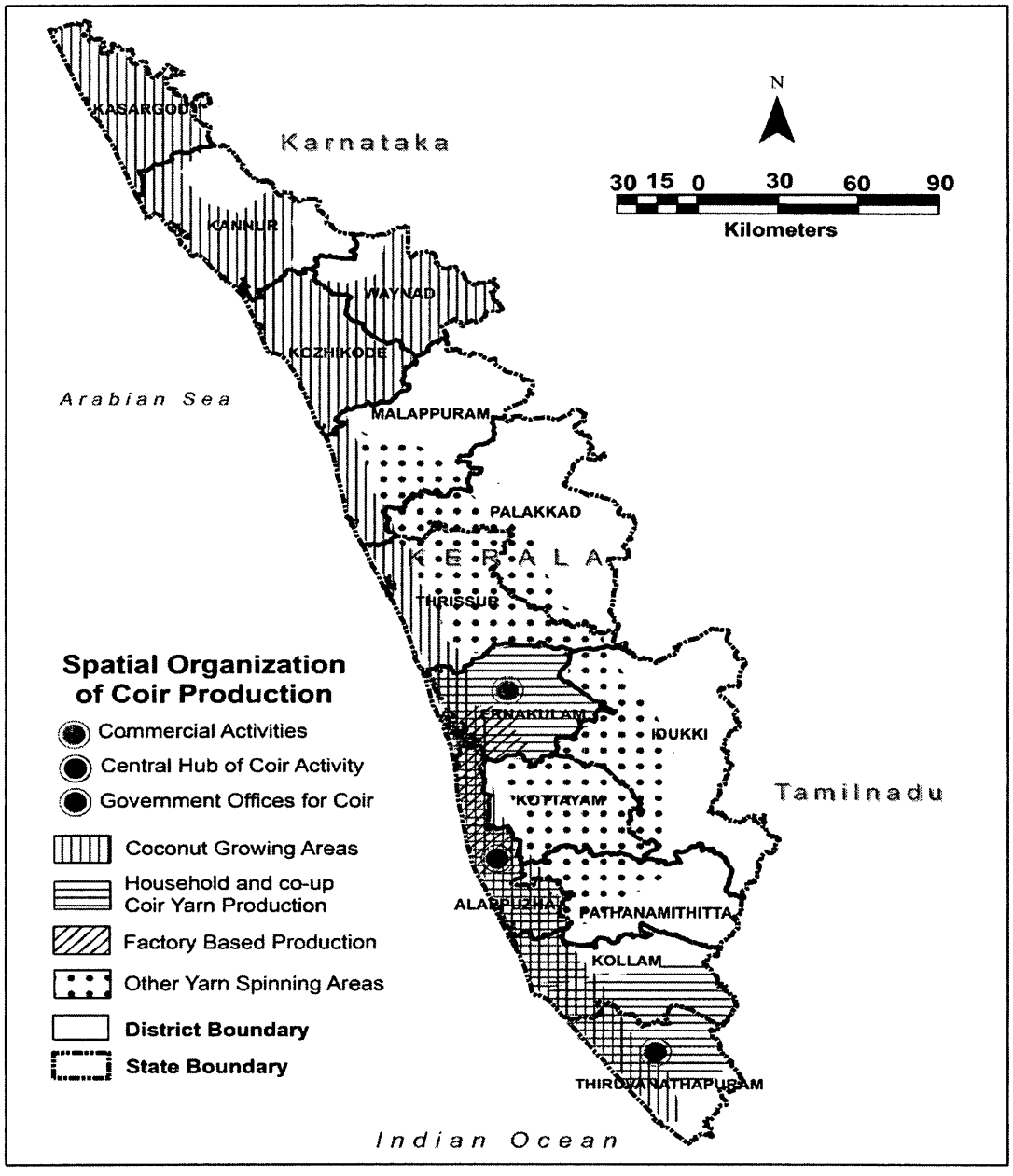
[149] Alappuzha town is the collection center of semi processed coir mats and coir yarn produced in the coir hinterlands which are used in the coir factories located in the town. The various research and development organizations including the Central Coir Research Insititute of the state is located between Cochin City and Alappuzha town. There is a clear distinction of hierarchy in the location of weaving (finished goods) units and the yarn production units in the industry as well. While weaving actvities are located to the north of Alappuzha town, yarn units are located in concentric circles around the weaving units or further south of Alappuzha town, with further concentration of yarn spinners in Kollam and Trivandrum districts, the latter areas specializing mainly in the production of yarn.

of the large factories and are directly associated with the latter in the form of subsidiary units. All such finishing units are located in Alappuzha town and its immediate suburbs. The weaving process, which is the next stage in the division of labor, is located just outside Alappuzha town in the semi-rural semi-urban vicinities. The strategic location of weaving activities is based on two aspects: easy transportability of basic woven goods to the big factories and easy access to yarn from the rural hinterlands. The raw material processing activities (spinning of yarn) are located in the rural hinterlands outside the suburban areas of Alappuzha town and Alappuzha district. The location of the spinning processes in the rural areas is primarily determined by the household based informal nature of this activity, concentration of female spinners in rural areas and for closer access to raw materials. Because of the disintegrated household based structure of production, these processes need not necessarily be based near the factory locations. This is the reason why spinning processes are located further south in Kollam and Thiruvananthapuram district and in other areas of Ernakulam, Kottayam, Thrissur districts in the west and north. Spinning processes also follow the regional specialization of specific yarn and yarn producing techniques in Kerala as will be discussed in the next chapter. Traditionally spinning processes were closer to the sites of raw material extraction processes, which are again disintegrated small scaled informal household based processes. However, with the improvement of transport and communication and the presence of intermediaries to connect the raw material locations to the processing (spinning) sites, allows the former to be located further from the prominent sites of

production (the coir belt). So, fiber production (or raw material extraction) are located as far as in the northern districts of Kerala in Kasargode, Wayanad and Kannur districts other than in the in specific locations of the coir belt and the places surrounding the belt.

As seen so far, the social relations of the coir industry are spatially organized leading to an uneven geography of capitalist development of the coir industry. Massey (1994) points out: location of spatial structures follows the spatial division of labor within a production process, which are based on the unequal relationships of dominance and subordination between classes (87).

Map 5.1. Spatial Organization of Coir Production in Kerala



execution. In the coir industry, this is reflected in the separation of the locations of commercial trading and capitalist value added advanced processes from the locations of household-co-operative-or informal based actual production processes. The former category controls the process of conception to be executed by the latter, whereas the latter has no control over the process of production because of their dependency on the former. Here the relations between places are conditioned by the internal necessity of capital accumulation, exchange, ownership and control of the industry as a whole rather than by independent exchange relation of each set of relations with the market. The separation of conception and execution of production and the relations of production associated with each places is not only limited to the main classes in the industry, but is also seen reflected in the competitive strategies within the working class. The monopolization of spatial location by male weavers (and medium scale producers) in the north of Alappuzha town is an example of the distinction between conception and execution in relation to the location of female spinners (small producers) in the south:

> "Historically Alappuzha town was the main seat of finished goods production and thereby the concentration of traditional weavers and so is it today too. We have to follow the spatial arrangement this way as it has always been the case. Our spinning communities are located in the rural areas closer to the source of raw material and centered round the particular yarn we produce" -- Interview with President of Coir Yarn Society in Haripad, south of Alappuzha district.

The monopolization of spatial locations (different processes in different location) also explains why coir production of finished goods is not located anywhere else in Kerala other than Alappuzha town when advancement in transportation now can clearly minimize comparative disadvantages of remote locations. The organization of spatial monopolies for different processes in the industry is also strategized for other reasons.

For instance, the location of the big factories between Cochin City and Alappuzha town is intended to spread out the spatial competition between the big producers, instead of all factories located in one specific place (field interview). While older coir factories have already monopolized their location in Alappuzha town, newer factories have spread outside of the town for place-based competitive advantages (nearer to Cochin city for business and closer to Alappuzha town for raw materials).

The separation of different processes in different locations also creates spatial placed based differentiation between workers:

> "The unevenness in the regional specialization of coir activities has been an important obstacle and still continues to be so in the collective organization of workers. Employment, wages and conditions of labor in the industry are very placed based in nature. Each place has their own specific trade unions affiliated to different political parties. Variations are marked between adjacent coir villages, let alone among the different districts. Workers are very tied to their place of residences and value place specific practices in the production of coir. Therefore, they do not always necessarily share the same concerns over work conditions or wages." -- Interview with Trade Union Leader, Thiruvananthapuram.

The disintegrated geography of production adds to the advantage of the employer whose control over the labor force is secured and collective resistances of workers are kept at bay.

Spatial location of economic activity in the coir industry considers the aspects of natural resource endowment, production linkages and regional specialization of coir production. The spatial division of labor associated with such economic activities has evolved over time following the specific social relations of production associated with such activities.

5.8. Conclusion:

This chapter examined the nature of capitalist relations through a detailed examination of the historical and geographical evolution of classes and class relations in the coir industry. An understanding of class relations in the capitalist development of the coir industry should be situated in the context of surplus value extraction and capital accumulation.

The coir industry presents a complex picture of the development of the relations of production as class relations unfold very differently in the rural and urban contexts and in the two sectors of the industry. Colonialism set the stage for the initial economic subordination of labor under capital in the coir industry, establishment of capitalist market and formation of a huge reserve of surplus labor. Production is capitalist in nature in the coir industry. Workers who own partial (small producers of yarn) or no means (workers in general) in the coir industry work for different types of propertied employers for a wage. A large section of the workers are hired labor (paid in daily wage or piece rate wages). The coir industry is controlled by private capital operating of various types: global capital, domestic capitalists and medium scale propertied employers. The export orientation of the industry means that the production process is tied to global markets and is dependent on the global demand for coir. While the large capitalist exporter-producers can invest substantially in inputs and technological processes in their establishments, a large number of medium scale propertied employers (including the state enterprises) hiring wage labor have to ensure that wages are kept low in order to maximize their

profits, stay in business and remain competitive. Employers hire workers at very low costs. Through the implementation of piecemeal wage-rates, they control the labor process by intensifying the labor process and lengthening the working day.

Workers on the other hand give into such forms of exploitation and labor control because of their vulnerabilities and insecurities in the face of fluctuating market conditions, the dependence of the semi-proletariat small producers and workers on the employing class and intermediate traders for work and wages; and most importantly competition for available work due to an ever-growing surplus reserve of labor in the rural countryside in Kerala, a phenomenon that is apparent in developing countries like India. The manifestation of such vulnerabilities is apparent in the form of workers' compliance to work longer hours for pittance wages; the exploitation of workers based on non-class forms of oppression (their social identities based on their gender/caste differences); their increasingly restricted ability to politically organize; and the dependency on their employers which subjects them to forms of un-free relations of production (debt bondage, tied labor process etc.).

Employers use different strategies to keep workers docile and vulnerable. First, as we have discussed in this chapter, colonial capitalists resorted to decentralization of the factory system of production to counter the first wave of worker's resistance in the 1940s, setting in motion a disintegrated production structure for years to come. Disintegration of the production structure into independent household-based production led to informal conditions of employment and wages, increasing worker's vulnerabilities. Second,

employer's preference for female workers in the raw material sector is another strategy to counter factory-based worker's struggle by male workers (also see Chapter VIII). Female workers are not only a compliant workforce but also the double burden that they have to bear to earn a living wage along with the responsibility of social reproduction adds to their already vulnerable conditions due to their socially marginalized status as women (see Das, 2012). Third, employers divide and control workers based on skill levels (between skilled, unskilled and semi-skilled labor) and segment the labor market between the two sectors of the industry. Employers by articulating relations of exploitation with forms of social oppression on the lines of gender and caste relations, discriminate workers in terms of access to employment opportunities and better wages. Fourth, employers also divide workers based on the spatial organization of the production process. The decentralized production structure, the spatial division of labor and the individualized household based production process divide workers from each other in the ways they work and live. Fifth, employers make use of un-free forms of labor through tied or attached labor practices, as and when their economic (profit making) and political interests (as a hegemonic class) are challenged (See, Das 2013 review of Brass's, 2011 work on unfree labor in capitalism). These forms of unfree labor relations are not exercised in the form of 'extra-economic' means (feudal practices), but rather by imposing conditions under which the worker's freedom to sell his labor power freely is curtailed. In the coir industry, employers use financial incentives to keep the workers and his family obligated to them. Additionally, they create debt

bondages for workers inter-generationally.

There is also the presence of numerous intermediate traders in the industry. Although these traders do not extract surplus from workers (and small independent producers) directly, a part of the total surplus is extracted as usurious interests/commissions by these trading classes at different levels of production and exchange. This way a part of the surplus extracted from the workers is lost over usurious means, rendering this portion of capital unproductive (not invested in expansion of the accumulation process). The lack of a strong domestic market for coir and the layers of dependency that workers and small producers face in their struggle for a living wage allow scope for such usurious practices. The emergence of the intermediate traders was also the outcome of the decentralized production system that colonial capitalism adopted to counter labor struggles and keep wages low. Presence of these intermediaries explains partly the persistence of vast number of pauperized small producers and struggling workers in the coir industry.

The degree to which the development of the productive forces has taken place in the coir industry is dialectically related to the nature of class relations of production. The contradictions faced in the development of productive forces in the coir industry, is the focus of the following chapter.

Chapter VI: Productive Forces in the Coir Industry

6.1. Introduction:

According to Marx, productive forces or forces of production comprise the means of production (raw materials and instruments of labor) and labor power (capacity to labor) necessary for producing the means of human existence. The unity of the productive forces is objectified in a simple labor process[150] in the production of a useful commodity. The main objective of this chapter is two-fold: to describe the simple labor process in the coir industry and identify the nature and types of productive forces and to discuss the latter in relation to the existing social relations of production. The degree to which the productive forces available in a given society can advance and progress to a higher level depends, at least partly, on the pressure of capitalist competition and accumulation and the corresponding nature of class relations. To paraphrase Marx's statement made in his famous *Preface of A Contribution to the Critique of Political Economy*, the social relations of production enable or fetter the development of productive forces (Marx, 1859). This chapter examines some of the constraints and contradictions faced in the development of the productive forces in the coir industry through an understanding of the relevant social relations of production.

The chapter is divided into six main sections including the introduction and conclusion, each section having a number of subsections. The section following the

[150] The simple labor process is constituted of 1) purposeful activity, that is work itself, 2) the object on which that work is performed, and 3) the instruments of that work-Marx, K. (1867), Vintage Books Edition, 1977, NY.

introduction (i.e. section 2) describes the simple labor process in the coir industry, including the nature of the means of production and the types of labor used. The next section (section 3) looks into the spatial organization of the productive forces across Kerala and the coir belt. Section four deals with the levels of production and export of coir in/from India and Kerala. It also looks into the levels of productivity, the state-initiated technological changes promoting productivity, and the contradictions surrounding the technological changes in the coir industry. The present scarcity of raw material in the industry also offers a plausible explanatory cause behind contradictions in technological change in the coir industry, which is an additional focus of this section. The final section ends with a conclusion of the main findings of the research.

6.2. Labor Process in the Coir Industry:

The simple labor process in the coir industry consists of the various stages of production, the product/outcome of each stage and the means of production used (machinery and labor power). The labor process is also spatially organized based on the spatial division of labor and the location of raw materials.

6.2.1. Products and Means of Production:

Coir production is a multi-level production process characterized by different stages of production from the initial process of raw material extraction and processing of coir yarn to the advanced stage of the production of finished products. The labor process

in the coir industry is not based on an aggregation of multiple specialized processing units under one centralized factory setting. On the contrary, the different stages of production are carried out in a unique combination of small-scale heterogeneous independent production processes. However, it bears some characteristics of a large-scale organic process (parts of the production process are carried out independently and the product of each part is brought together as the final product).[151] The division of labor -- between the two main sectors (raw material and finished products), between factory and household based production, among large, medium and small scale units -- in the coir industry has been historically structured by changes brought about by both global (colonial and now neoliberal) as well as local forces (placed based division of labor and raw materials). Coir production is a two-phased process divided into two sectors[152] -- the yarn spinning sector and the finished goods manufacturing sector. The raw material processing (spinning) sector provides raw material (coir yarn) for production of advanced finished goods in the weaving sector. Part of the coir yarn and the entire volume of finished goods are exported to countries worldwide. Between these two sectors, the industry incorporates a wide array of activities, starting from the collection of coconut husks for raw material extraction up to the production of the final finished goods (data given below). The following description of coir production is compiled from the

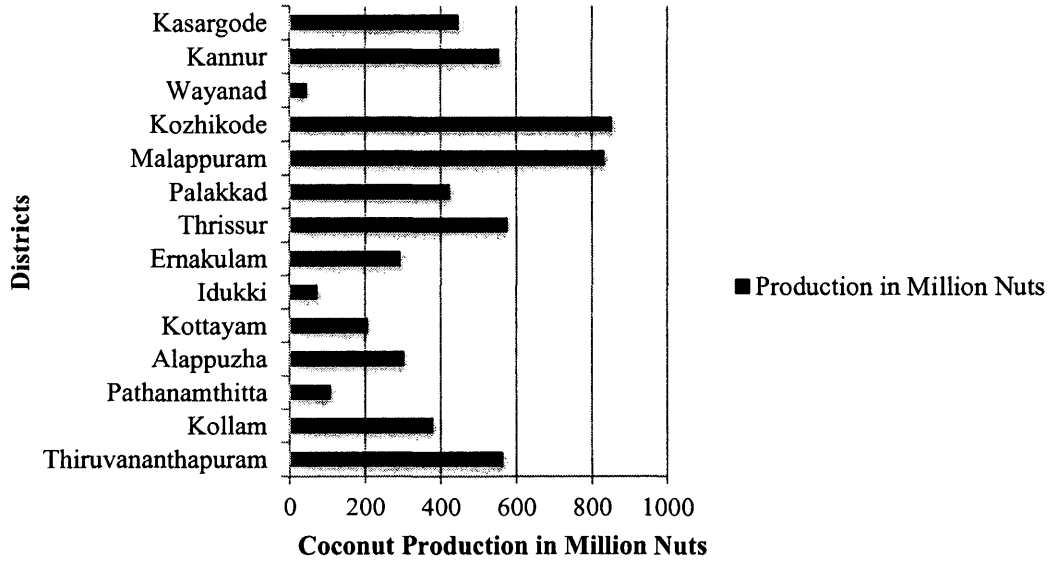
[151] Based on Marx's distinction of the two different kinds of manufacture (*Captial Vol 1*, 1867: 461-469)
[152] Here the word 'sector' is used only for distinguishing the two main forms of production in the coir industry and doesn't have any conceptual meaning.

Handbook of Coir, Coir Board 2007 and observations documented in the course of fieldwork[153] (see Figure 5.1).

a) Stage One (raw material extraction): The first stage of coir production is extraction of raw materials (fiber) for spinning. Coconut is extensively cultivated throughout Kerala because of the tropical climate in the state, which favors coconut production. In the years, 2010 and 2011 the annual production of coconut was 5667 million nuts and 5287 million nuts respectively (KITCO, 2010) (see Diagram 6.1). Coir production starts with the process of extracting fiber from the husk of the coconut fruit. At present only 30-40 per cent of the husk[154] (husks are counted per coconut) available in the state is used for the fiber production. It is estimated that only 1,30,000 metric tons of fiber is available for coir production in the State (KITCO, 2011). As seen in the diagram below, coconut is collected from the various districts of Kerala. A significant amount of coconut is also produced in the northern districts of Kerala (Wayanad, Kozhikode and Thrissur) or the Malabar regions (see Isaac's discussion on this, 1992).

[153] Excerpts of the coir production process have been obtained from interviews with Dr. P.K. Balakrishnan (Ex Director of Coir Board) and Prof K.T. Rammohan (M.G. University, Kottayam) in course of fieldwork interview in 2009 and 2010. Handbook of Coir (2007) a Coir Board Publication has also been consulted.
[154] Quantity of husks is calculated per coconut or one husk per coconut.

Fig 6.1. Districtwise Coconut Production in Kerala, 2007-08



Source: Agricultural Statistics, Department of Economics and Statistics, Kerala, 2009.

The first stage begins with the collection of coconut fruits and pooling them together for fiber extraction. De-husking is done mostly by manually thrashing or ramming the coconut against an iron spike to extract the husk from the outer fibrous shell of the coconut. Once the coconut shells are de-husked, the husks are transported in huge bulks to *Retting* (as called in Malayalam[155]) or defibering sites for further processing. Earlier, transportation would take place through the river canals and the natural backwaters[156] of Kerala (Isaac, 1992; Balakrishan, 2005). Nowadays coir husks are also transported by road.

[155] Malayalam is the local language of Kerala.

[156] The Kerala backwaters are long chains of brackish water bodies like lakes and lagoons that runs north to south across the state and parallel to the Arabian Sea. The backwaters are intricate webs of natural canals and crucial for internal river transport in Kerala.

Image 1: Coconut Husks[157]

Source: www.coirmat.com

'Retting'[158] is a process of fiber extraction from the husks of the coconut by decomposition techniques. In the traditional method, *Retting* was done previously on a large-scale basis mostly by the seashore or in the backwater region of Kerala as well as in large backyards of rural households with a pond.[159] In order to soften the fiber for extraction, saline seawater or brackish muddy water in small ponds is preferable but not necessary as these conditions can now be artificially created even in areas that are not in close proximity to natural water bodies. The traditional practice of *retting* in Kerala involves soaking of large bulk of coconut husks in water for a period of six to ten months, the time frame varying for different types of coir yarn. This traditional method is now

[157] Participants in the Field did not allow permission for photography. Therefore, only two photos are from the field.
[158] Retting is a colloquial word for technical process of 'rotting' coconut husks.
[159] Most rural households in Kerala have a small family pond in the backyards of their houses. These ponds serve as supply of water required in the past and continues to be so for many households even now.

considered unsuitable due to environmental pollution. Retting in ponds emits strong odor due to long periods of immersion in stagnant water.[160] The Pollution Control Board of India now has special regulations for retting processes in Kerala.[161] The traditional *retting* process is considered to be laborious and time-consuming to overcome which, retting is done nowadays by modern chemical or mechanical processes. Retting done by chemical and mechanized process in concrete tanks also improves the color and yield of the fiber for making coir products and is increasingly being preferred for enhancing the qualities of value added products (Coir Board, 2007). Value addition here is not simply understood in its economic definition -- which is the sum of the cost of labor, cost of depreciations and cost of unit profit per unit of production. Rather it is largely understood as the addition of "extra" features in the final product that provide an extra competitive edge to coir companies in the global market.

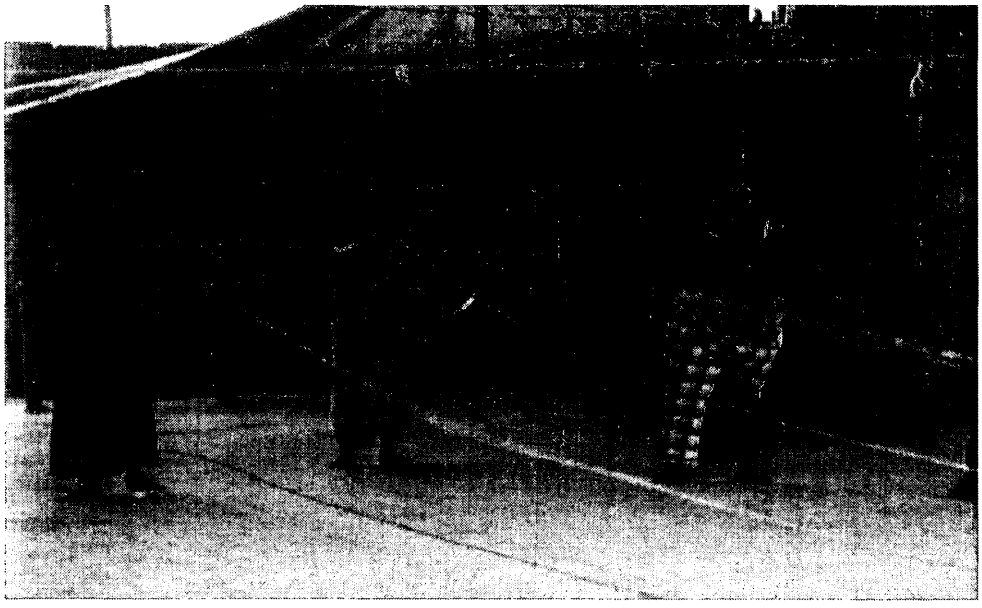
b) Stage Two (spinning): After the coconut husks are *retted* and fiber is extracted (see Fig 6.2 below) this fiber is spun into yarns, which form the raw material for finished goods production. There are at least three different methods of coir spinning. The first method of spinning is hand spinning which involves the rolling and twisting of the coir fiber in between both palms of the hand into short strands of twisted yarns which is held

[160] It was observed in the course of fieldwork that coir households are very close to each other. Without proper drainage facilities and water stagnation due to excessive retting processes, these ponds become breeding grounds for mosquitoes and other insects leading to diseases like malaria, dengue or other tropical viral diseases. Also, ecologically such processes have led to the depletion of fish and other water organisms.

[161] 'Bioinocular Treatment' against backwater or closed pond *retting* (Coir Board, 2007).

in between the toes (based on fieldwork observations). A number of individual short strands of 15 to 23 cms are rolled and joined to make a yarn of 6m to 8 m in length (Handbook of Coir, Coir Board, 2007). The hand-spun method is now less preferred but is still in demand as the quality of hand spun yarn is considered to be good in texture and strength (based on fieldwork interview with coir spinier at Pathirapally in Alappuzha). The second method of spinning yarn is by using spinning wheels or *ratts* (as locally called). A traditional *ratt* may generally have two to three spindles, which require two workers at a time -- one to rotate the handle of the wheel and the other to spin the fiber into yarn. Under the recent mechanization drive, the second method using the hand-operated wheel is mechanically upgraded with ¼ th HP of motor power.

Image 2: Women Spinning Yarn from Coir Fibres



Source: Photo from the author's fieldwork

Such semi-mechanized wheels require one worker per wheel. This improved method makes it the third method of spinning. The entire yarn for the industry was hand-spun until the later part of the 19th century with improved methods of wheel or *'ratt'*[162] spinning introduced and widely adopted since the beginning of the 20th century. The female worker who spins the yarn carries a bundle of loose coir fiber tied around her waist in a pouch with one end of the yarn tied to the wheel from where she walks backward spinning the length of the yarn (Image 2). At this stage, the coir yarns are also dyed in different colors.

[162] Spinning wheel or *Charkha* made of wood or bamboo, manually operated mostly although semi mechanized at a very small scale now.

The spun coir yarn may be a final product (for export) or intermediate raw material (in the process of production of final coir goods) (see Fig 6.2, 6.3, 6.4, 6.5 for data below). The coir yarn after it is spun is reeled into hanks (round steel or iron frames). Hanking is a method of rolling up coir yarns into big size bundles ready for manufacturing of finished products like mats and mattings. Certain coir yarns are shipped into regular country sized hanks on the basis of special orders for buyers in the global market. Bulk of the coir yarns for exports are also re-hanked into "Long Hanks" or "American Hanks"[163] which can roll up to 350 yards of coir yarn in a diameter of 2.4 inch. These are exported as yarns for manufacturing of finished goods to the importing countries (Coir Board, 2007). Other than exporting coir yarns as they are, a certain amount of coir yarn is also made into ropes for domestic consumption in agriculture and industries as well as for household purposes. Rope making is done at the household level in Kerala as well as in other nearby fiber producing states like Tamil Nadu (Refer to Table 5.2 below for data on production of coir products).

c) Stage Three (weaving of finished goods): The third stage in the coir production process is coir weaving or production of finished goods. The weaving sector is a relatively advanced sector in regards to mechanization techniques compared to the spinning sector described so far. The weaving of coir products involves a number of steps from the development of the coir yarn into final finished products. Before the coir yarn is

[163] Named after the preferential requirement of buyer countries. American hanks are the standardized size of coir yarn preferred globally (Handbook of Coir, Coir Board, 2007).

woven into products, the fiber is bleached and dyed to improve the color and quality of the yarn (Handbook of Coir, Coir Board, 2007). Bleaching is done to improve the whiteness of the coir yarn before weaving them into mats. Maintaining a clean white color is essential before the mats can be dyed or stenciled with colors for value addition at the final stage. Hydrogen peroxide is combined with other reducing and oxidizing agents to the coir yarns entailing the bleaching process (Coir Board, 2007). The use of these strong chemicals emits strong toxic odors and can be harmful to health if proper precaution is not taken. After the bleaching is done the mats are sundried for another day or so (fieldwork observation). Dyeing is an additional essential step for value-added products. Dyes are applied to coir yarn before weaving into mats or basic woven mats are dyed, stenciled or printed later in value addition processes. After the coir yarn is bleached and dyed, they are sorted out in bundles depending on the type of fiber, dyed yarns, thickness and texture (fieldwork observations). These are preparatory processes for weaving of coir mats and mattings (carpets). These separated yarns are then spliced or joined together into bundles into a continuous workable length on the hand or power looms.

Weaving of coir mats and mattings (final products) are done by handlooms or power looms. Mat handlooms are single worker operations mostly done in a sitting position, whereas matting handlooms are more physically strenuous, as it requires the workers to be in a standing position till the entire length of the matting is woven.

Advanced power looms are only used in large[164] factory based production units, which carry out production at large scale (1000 to 20,000 tones in quantities, Coir Board Statistics, 2012) or in state sector companies, which use basic power looms.

Image 3: Workers on a Mat Hand Loom

Source: www.onevillage.org

After the coir mats and mattings are produced they undergo further processing. Until the 1980s, coir products were mostly exported in the form of mats or mattings. However, the

[164] Comprising of 200-500 workers (Based on company profiles of major export houses like DC Mills, William Goodacre, Kerala Balers, etc).

basic mats and mattings sector are now diversified into many varied product designs based on individual preferences of foreign buyers whose choices in turn are based on the requirements of their own domestic markets. The 'value added' sector has been growing profusely as a subsector of the large-scale finished goods manufacturing sector (fieldwork observations). Value additions may include further development in the structure, texture, design and color of basic coir products to suit consumer tastes. This process is seen as a strategy to improve marketability of coir products globally.

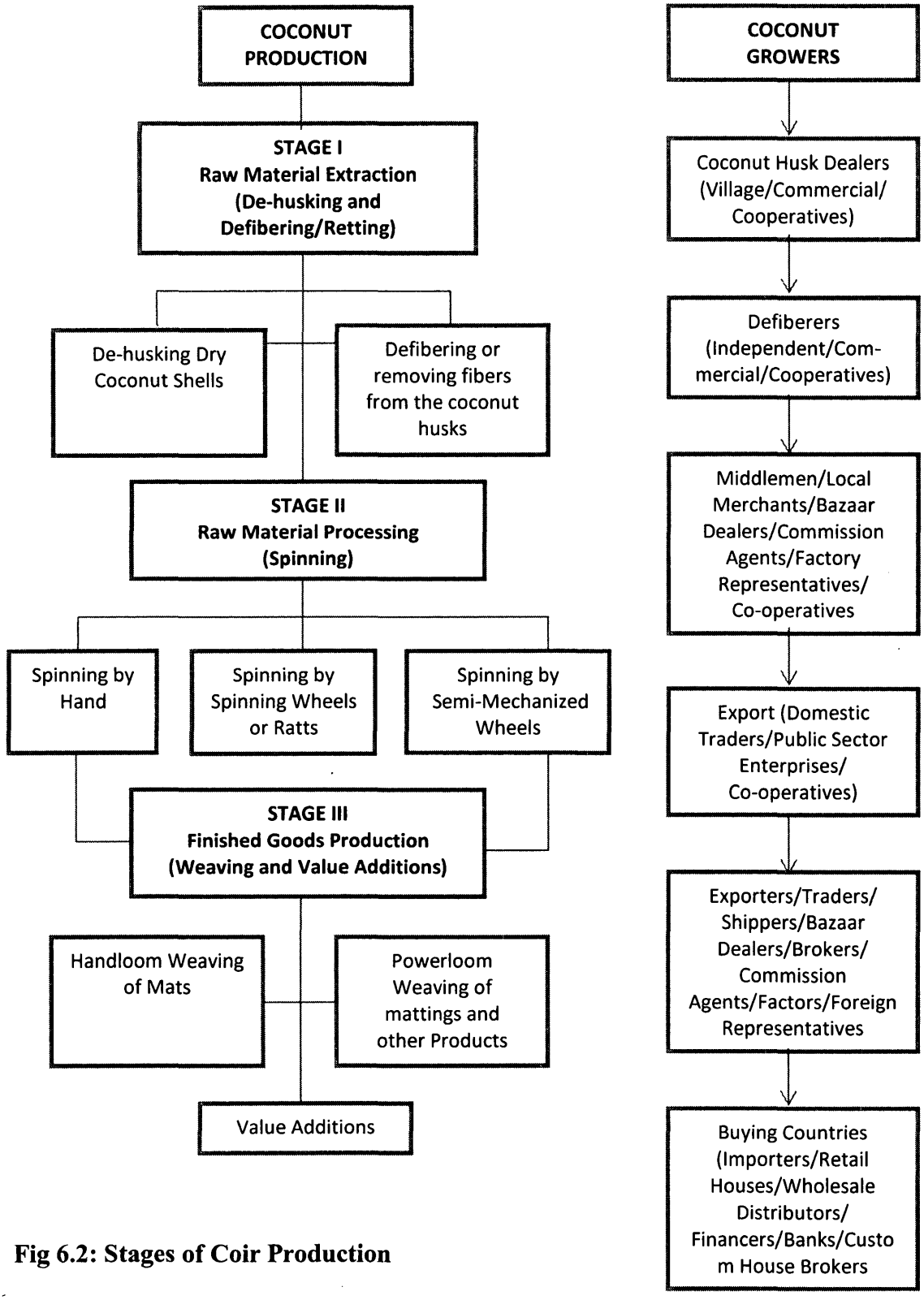


Fig 6.2: Stages of Coir Production

6.2.2. Types of Labor Power in the Production Process:

There are different levels of labor power used in the coir industry ranging from skilled to semi-skilled to unskilled labor in the two main sectors (information on types of labor is based on field based observation and interviews). Viewed as a whole, the general perception in the industry is that skilled labor power is concentrated in the advanced finished goods sector whereas the raw material extraction and processing sector comprises semi-skilled to unskilled labor force. This assumption is based on the fact that the finished goods sector requires complicated and more detailed work. These are in the form of weaving work (acquired skill handed down through generations of coir weavers); operation of machines like power-looms; and also professional and managerial work requiring a certain degree of training, apprenticeship[165] and levels of education ranging from basic to specialized areas. Whereas, the raw material extraction and processing work -- spinning, defibering and de-husking work -- can be performed by semi-skilled and unskilled labor with basic or no requirement of training or education.

However, considered from the point of view of individual sectors, the general distinction between a skilled and unskilled worker or the difference between skilled or unskilled labor power depends on what counts as skilled labor as well as from the vantage point of the production of value.[166] For instance, although traditional weaving

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[165] Based on Marx's idea of apprenticeship (or training) in the context of skill formation in Capital Vol. I, Chapter 14:470.

[166] 'Skilled labor counts only as simple labor intensified, or rather, as multiplied simple labor, a given quantity of skilled being considered equal to a greater quantity of simple labor. Experience shows that this

processes are specialized divisions of labor and requires adequate training, a worker who can operate a power-loom in the finished goods sector is considered to be more skilled than a traditional worker. This is partly due to the fact that ability to run a machine effectively ensures more detailed production in less time, thereby increasing productivity. It also partly stems from the nature of the product: traditional handloom weavers weave basic mats or mattings whereas a power-loom operator produces more complicated and detailed mattings. Again from the perspective of education levels as well as training and wages earned, managerial jobs are considered more professional and differing in levels of skills then a weaver (whether traditional or modern). At a larger scale, skill levels and better wages or opportunities are always a matter of comparison between the handloom weavers who work in households, small units or co-operative units on the one hand and the factory based skilled workers who operate power-looms on the other hand. The latter are perceived to be in a better position in so far as they work in the formal sector, enjoying fixed wages and better opportunities for professional growth (based on fieldwork observations). However, my interview with a group of factory workers[167] indicated a different sense of perception altogether of skilled work in the factory:

> "By the end of the day, having skill in a factory floor, workshops or household makes sense only in terms of the ability to run a machine [power-looms or other related machines or a handloom]. But what matters is how a particular skilled worker contributes to increasing the rate and quantity of total goods produced calculated in time taken for production and costs" – Interview with workers outside one of the biggest export based factories in Alappuzha.

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reduction is constantly being made. A commodity may be the product of the most skilled labor, but its value, by equating it to the product of simple unskilled labor, represents a definite quantity of the latter labor alone' (Marx, Capital Vol. I: 135).

[167] Based on a focused group interview with a group of factory workers striking outside the gates of a leading export cum production factory in Alappuzha district in July 2011. The workers were striking for better work conditions among other things.

Thus having skill means the worker's ability to contribute towards extraction of surplus value. Skilled worker in other sense is more intensified, productive labor (Marx, 1867, Chapter 1, 7). Productive labor in a factory or the finished goods sector is advantageous for the big exporters, as skilled labor will produce more surplus value in less time. A skilled labor operating a mechanized loom will bring down, the 'per unit cost of production' as less value (as socially necessary labor time to produce a commodity) is embedded in each product. In other words one skilled labor in the coir factory will produce more output at lesser cost (=wage) than 3-4 workers for the same job. Thus having skilled labor requires the employers less workers to handle in a factory, cuts down the labor cost of production, yet speed up the process of finished goods production. Therefore, considered from the point of production of value, varying degrees of skill in the finished goods sector is just a form of intensified labor[168], which is valuable in terms of increasing the overall productivity in the industry. But then, technologically skilled workers are concentrated in a relatively smaller finished goods sector[169] compared to the

[168] "Skilled labor counts only as simple labor intensified, or rather, as multiplied simple labor, a given quantity of skilled being considered equal to a greater quantity of simple labor. Experience shows that this reduction is constantly being made. A commodity may be the product of the most skilled labor, but its value, by equating it to the product of simple unskilled labor, represents a definite quantity of the latter labor alone. The different proportions in which different sorts of labor are reduced to unskilled labor as their standard, are established by a social process that goes on behind the backs of the producers, and, consequently, appear to be fixed by custom" (Marx, Capital Vol. I: 135).

[169] As of 2012 estimates of data from different sources, there are 400 exporters in Kerala (Coir Board Statistics, 2012) out of which finished goods production is undertaken by only top 20 exporters who are also manufacturers (based on actual field based observations and calculated data). Among 20 export houses which have factory based production facilities, the total number of workers in such establishments ranges between 200 to 500, with exceptions of 1000 workers in one or two export houses (based on individual company profiles). Out of this 500 or 1000 workers, at least 20-30 percent are engaged in managerial work while 10 percent may be contingent workers for various subsidiary activities like drivers, peons, page boys etc. Remaining 50 percent are skilled factory workers. But compared to the 43 lakhs workers in the industry

raw material extraction and processing sector. The bulk of the work in the industry -- raw material extraction and processing sector along with the handloom weaving -- can be performed by labor who are not or only partially skilled. These works are done by traditional skilled labor (who acquire skills over generations), semi-skilled labor (spinners of yarns who need basic skill levels to spin specific place based specialized yarns using semi-automated spinning wheels) and unskilled labor (comprising of the large numbers of spinners who spin yarn manually as well as the *retters* or de-husking workers).

The observation about skilled labor power in the coir industry reveals a few basic aspects. First, from the point of production, the degree of overall skill available or attained in the industry matters only in terms of productivity-increase: in other words, skilled labor produces more per hour/day or more skill is more surplus value accrued in less time. Second, although traditional skill levels (as acquired through generations) are advantageous as intensified forms of specialized labor, these are again relevant from the point of production of value. Third, therefore, the customary distinction between types of labor power and the division of the laboring class as skilled or unskilled is based on the traditional perceptions of the attributes that make a skilled worker. These perceptions are rooted in the ways the social and spatial relations of production are organized in the

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(KITCO, 2010) who are skilled, semi-skilled or unskilled, the percentage of skilled workers in the factories are a relatively smaller quantity of skilled labor power required in the industry compared to the rest of the workers.

industry and how such perceptions facilitate relations of exploitation and control among the various classes in the industry.

6.3. Spatial Organization of Productive Forces:

The productive forces -- raw materials and types of labor power -- are spatially organized in the coir industry. The different processes of production -- raw material extraction, processing and production of finished goods -- are spread out in geographic concentrations in four core districts of the state, which we will identify as the coir belt -- although raw material extraction and processing of yarn takes place to some extent in variation throughout the length and breadth of Kerala. The important places of concern in the coir belt are Kochi (Cochin) in the district of Ernakulam is in the north east of Kerala; Alappuzha (Alleppey) district often referred to as the 'coir capital' of India in central Kerala; Kollam (Quilon) district which lies south of Alappuzha and at a small scale in Thiruvananthapuram (Trivandrum) district south of Kollam. The geographic concentration of certain production processes in certain places depends on the spatial division of labor in the industry (administrative/commercial processes at one location, factory based finished goods weaving at another place, and spinning processes and extraction of fiber at yet another place). Also place-based specialization of particular forms of skilled/specialized labor and types of coir yarn also adds to the geographical distribution of the production process (based on an understanding of the production processes in the course of field observations as well as on data and information from

various sources (see Table 4.1). Kerala also has a unique geographical layout of rural-urban continuums[170] throughout the state with settlement concentrations of small and medium urban areas (towns and cities) along major state roads and national highways (see Sreekumar, 1990). Such settlement patterns along major roads and highways facilitate transport and communication and therefore connect semi-urban peripheries to major urban areas as well as rural hinterlands to urban agglomerations blurring the distinctions between rural and urban areas. Factory based production facilities are therefore located along such major roadways in the state due to easy transportability. Some of the medium and small production weaving units (in the finished goods sector) and the entire raw material extraction units are scattered in the rural hinterlands and peripheries surrounding the main towns and cities and connected by both intricate networks of roads and waterways. Backwater canals also connect remote rural areas by water to the nearby centers of production or trade (Balakrishnan, 2005).

The finished goods sector of the industry is located in the urban cities and towns as well as the urban peripheries (most of these observations are based on fieldwork information and Balakrishan, 2005). As is the case with many other commercial activities and industries, commercial retailing and export related activities of the coir industry are located in Cochin City (located in Ernakulam District) -- the commercial hub of Kerala. Cochin City is one of the main business cities and trading ports in India. Also, Ernakulam

[170] The rural urban continuum is apparent in the fact that no clear distinction can be made between a village and a town in terms of physical appearances as well concentration of facilities like networks of transport. This poses a dichotomy in the definition of rural or urban areas in Kerala. See Sreekumar, T.T. (1990).

district in which Cochin is located houses one of the major railway junctions in southern Indian -- which is located in Cochin -- linking Kerala to the rest of India. While Cochin is the main trading center, Alappuzha town at a distance of 35 miles from Cochin is the main seat of finished goods production. Alappuzha town and its urban fringes along the state highway 40 and 66 are spotted with a number of major coir factories engaged in the production of finished value added coir goods (field work observation). The major finished goods production facilities in Kerala are located mainly in and around Alappuzha town and also around the urban peripheries of Cochin City.[171] Alappuzha district has been the central hub of coir activity since the colonial period (as discussed in the previous chapter). Alappuzha has been one of the major marine ports after Cochin and is most intricately connected to backwater canals facilitating internal transport and trade (Balakrishnan, 2005).

While the retailing and production facilities (comprising the entire finished goods sector) are concentrated in these two[172] urban areas[173], part of the weaving processes (done at households or co-operatives) and the entire raw material extraction and processing processes are scattered mainly in the rural hinterlands of the main towns and urban areas. These are located in Alappuzha and Ernakulam districts and other small

[171] The top 20 export houses which have factories for coir goods production are located in Alappuzha town and Cochin (according to the list of exporters, Coir Board Statistics, 2012)

[172] Data on the population size of these city/town are provided in Chapter I. Disaggregate data on coir and non-coir employment by residence is not available in accessible format. Workers in household industry comprise 14 percent in Alappuzha and 8 percent in Ernakulam of the total workers in the category for the state. 6.4 percent in Alappuzha and 5 percent in Ernakulam are agricultural laborers of the total workers in that category in the state (Census of India, 2001).

[173] Few export houses are also located in the towns of Kollam and city of Trivandrum as well but these may or may not be engaged in production of finished goods. Not all export companies engage in finished goods production (based on fieldwork information).

towns and villages in Kollam and Trivandrum districts. Some raw material extraction also takes place in northern Kerala along the Malabar Coast. Since raw material extraction and processing processes are not factory based, they are mostly located wherever coconut can be easily grown and husks can be easily extracted (fieldwork observation). Another important reason behind the scattered distribution of yarn production is the regional specialization of specific coir yarns (Map 6.1). There are at least nine different coir yarns produced as regional specialties in Kerala. The production of each yarn is embedded in the place based settings of a region they are named after. Table 6.1 and Map 6.1, show the type of coir yarn, places of production, techniques used in their production and their use in itself or for finished goods production. The regional specialization of coir yarns depends on the availability of traditional levels of skills in a specific places and traditional practices involved in the production of these yarns (as seen in the table above). The sense of place-based division of labor when it comes to coir yarn production is quite strong. Coir-spinners of one region that specialize in the production of a particular yarn hardly expand their scale of production to spin yarns of a different type and quality when they are capable of doing so.

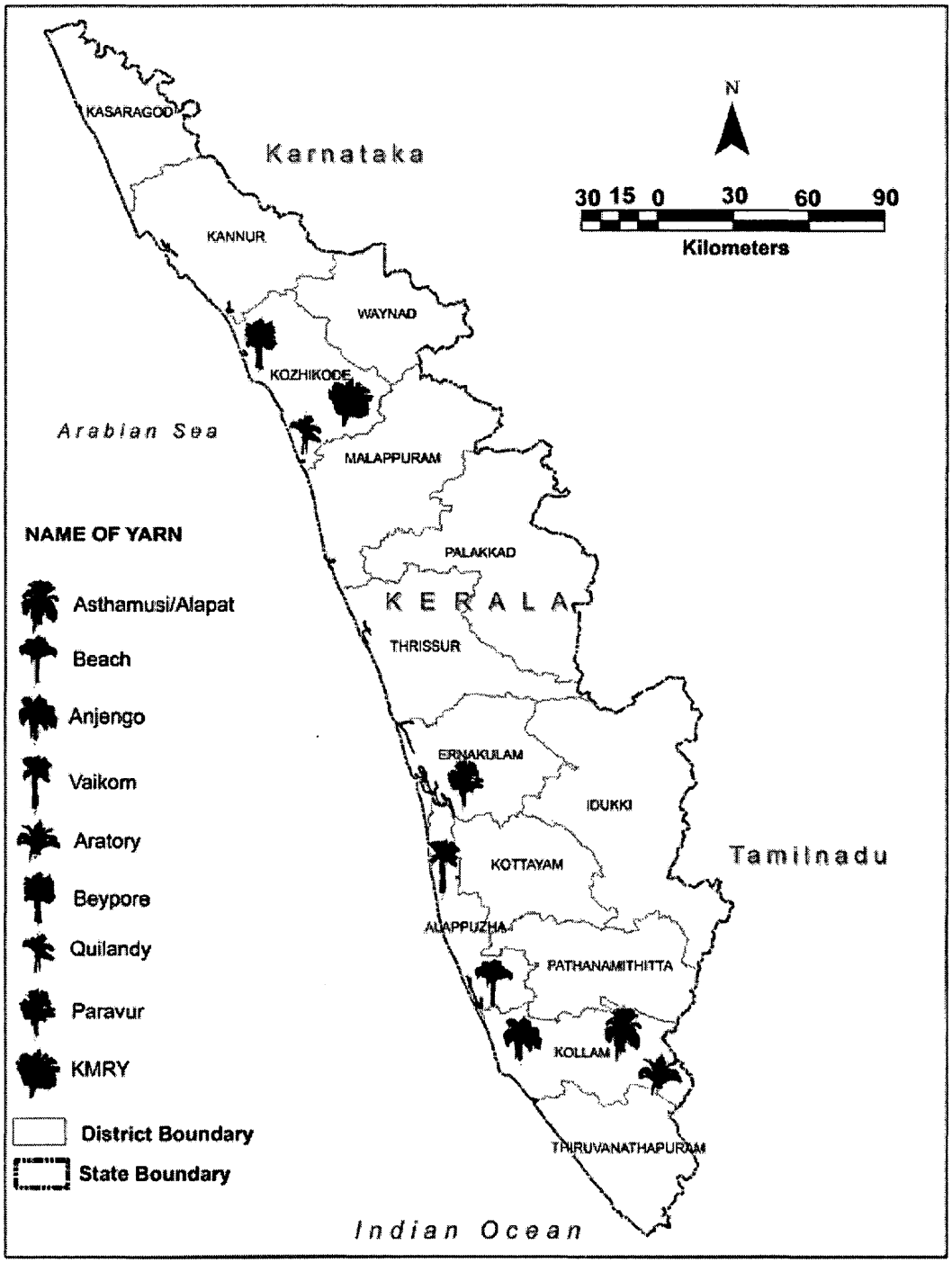
Table 6.1. Types of Coir Yarn according to Regions in Kerala

Name of Yarn	Place	Production Technique	Use
Anjengo	Anchatenga (Kollam)	Manually wheel spun but also hand spun	Used for making mats and mattings for export
Asthamudi/Alapat*	Kollam	Handmade or Manually wheel spun	Rope making for local use, very rarely produced now
Aratory	Kollam	Manually wheel spun	Used for making mats and mattings for export
Vaikom	Vaikom, Cherthala (Alapuzha)	Handmade or mechanized wheel spun	Used for making mats and mattings for export
Beach	Beach of the Arabian Sea (Alapuzha)	Hand Spun*2	Used for making mats and mattings for export
Beypore/Rope Coir	Malabar Coast	Hand Spun	Rope making for local use
Quilandy/Rope Coir	Malabar Coast	Hand Spun	Rope making for local use
Paravur	Ernakulam	Hand Spun	Very rarely produced now
KMRY	Kozhikode/Calicut	Mechanized wheel spun	Used for making mats and mattings for export

Source: Author's interview with William Goodacre, Alleppey; and Report of Coir commission, Government of Kerala (2008) *[174]

[174] *The backwater lake *Asthamudi* in Kollam district is used for the Retting process of coir yarn and so its name.
*2 Hand Spun Coir is in less demand now for export due to the longer time it takes to make coir.

Map 6.1: Types of Coir Yarn According to Regions in Kerala



While the specific technique and skill employed for the production of a specific yarn may be exclusively the specialty of one region (based on the information on table 6.1), some observers[175] of the industry say that this is a "self imposed work sharing" on part of laborers, for such kind of regional arrangements help in spreading out available work equally in times of low market demand for some yarn over others in the industry.

However, fieldwork interviews and observation and existing literature indicate the strict adherence to the spatial specialization of coir yarn is also an economic and ideological strategy for creating competition between workers based on types of yarn in demand and techniques of production as well as differential regional wage levels in the industry as pointed out by different studies (Isaac, 1990; Heller, 1999).

6.4. Levels of Production and Export:

The coir industry, which is an export-oriented industry, has always been subjected to the changes in global demand and supply based on trends in the global market (Kannan, 1976; Isaac, 1983, 1990, 1992; Heller, 1995, 1999; Rammohan, 1999; Balakrishnan, 2005; The Hindu, various editions over last 10 years). Facing ups and downs in the global demand for coir and coir products, the industry has gone through various phases of restructuring and re-organization of its productive forces since the colonial era. The industry boosts production to meet increasing global demands or cuts production and production costs when market conditions are stagnant. While

[175] Issaac, T.M.T. et al (1992) *'Modernization and Employment'*, Sage Publications. New Delhi.

technological change in the form of mechanization is essential for increase in productivity in the industry, the process of technical change is met with crisis of sustainability.

The production of coir in India has shown a more or less steady upward trend (except for coir yarn) in the last decade or so indicated in the figures below.

Fig. 6.3. (a) Production of Coir Fiber and Products in India, 1980-81/2009-10

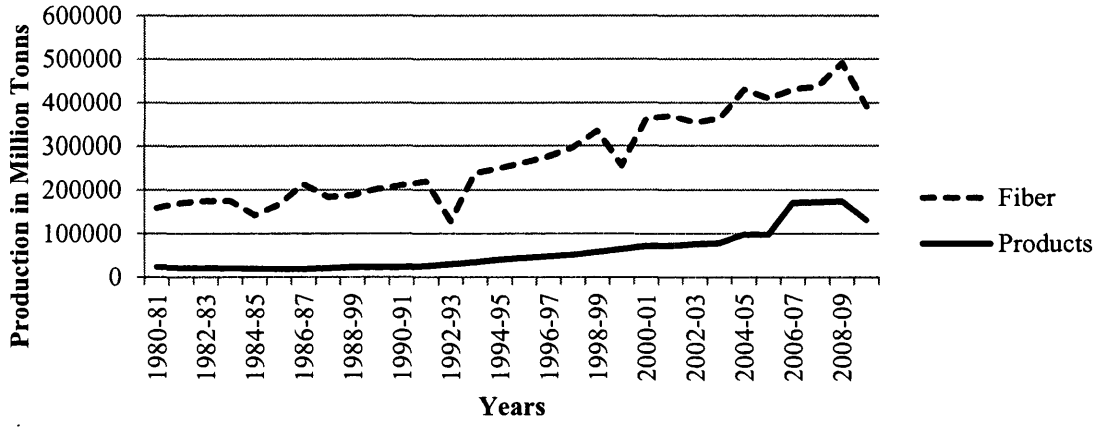
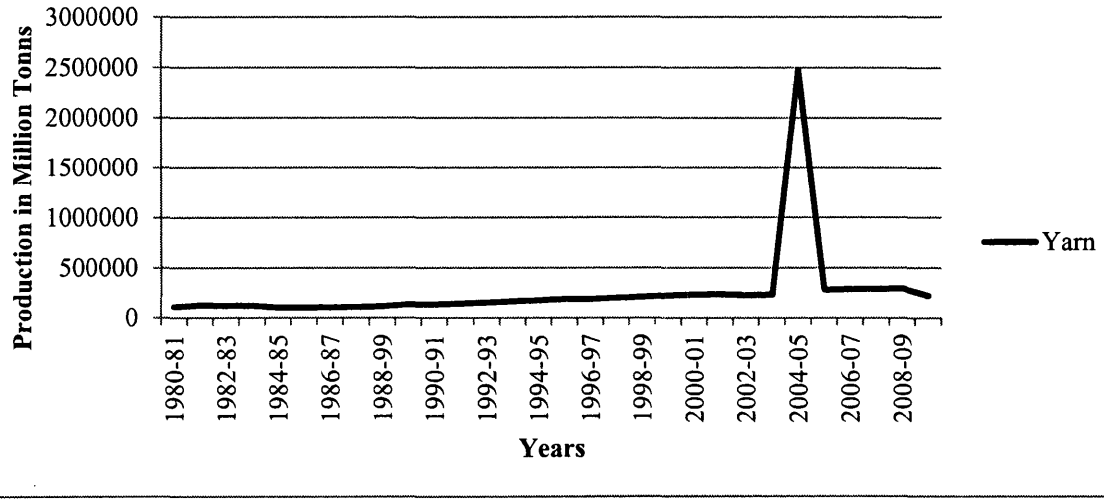


Fig 6.3. (b) Production of Yarn in India, 1980-81/2009-10



Source: Coir Board Reports, Various Years.

Fig. (6.3, a and b) above indicates the aggregate growth rate of various products of the coir industry in India -- in the form of coir fiber (raw material); coir yarn (processed raw material) and coir finished products (wide variety of products including mats and mattings). As seen in the diagram (Fig 6.3 (a)), the production of coir fiber has fluctuated over the decades between 1980-2000 with intermittent periods of high and low growth rates. The same is true for coir products as well, the rise in production particularly showing an increase from the last two decades but showing a decline in 2010. Production of coir goods has picked up since the 1990s. Coir yarn production on the other hand remained more or less steady, except for a sudden spurt of increase in 2004 following which there has been a slightly downward trend in recent years (6.3. b).

The trends of coir production in the figures above show the aggregate pattern of production in consecutive years. However to measure the long-term fluctuation over specific intervals of 10 years, the decadal growth rate[176] of coir production is ideal. Decadal growth rates calculated for a period of 10 years, reveal that coir fiber and products recorded positive growth rate for the periods: 1980-90 (27 percent for coir fiber and 0.38 percent for coir products), 1990-2000 (21 percent for coir fiber and 170 percent for coir products) and 2000-10 (7.5 percent for coir fiber and 82 percent for coir products). This is indicative of the fact that although production of fiber was high until

[176] Calculated as ((Current Year-Base Year)/Base Year) *100 for ten years.

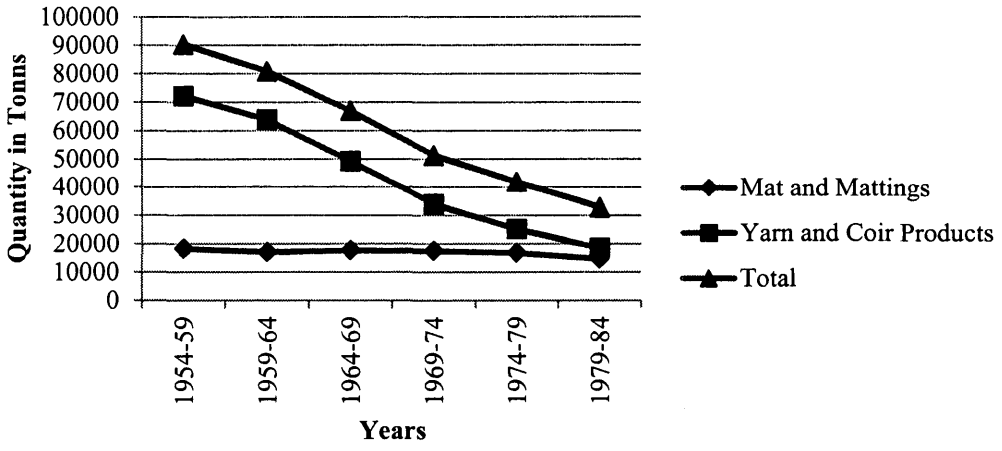
1999, fiber production has come down in recent years, despite recording positive growth. On the other hand, production of finished goods was low in the 1980s but picked up considerably in the 1990s and has declined marginally in the 2000s. However, yarn production between 1999-2000 has recorded a negative growth rate (-4.92 percent) compared to high positive growth rates of 23.6 percent between 1980-90 and 65 percent between 1990-2000.

The aggregate figures of coir production in India slightly overshadow the specific trends of coir production (particularly fiber production) in Kerala (although disaggregate data for coir production in Kerala alone is not available consistently for comparison in all the three time periods as mentioned above). However, Kerala is a significant coir producer in India, particularly yarn and goods production, which are more or less exclusively produced in Kerala. The percentage of variation in coir production over 30 years as well as the decadal growth rate of coir production suggests recent changes in the coir industry in Kerala as well. First, production of coir products have been consistent with global market demand, the increase in production particularly in the 1990s is suggestive of the changing trade relations and growing market demand for coir as part of neoliberal trade reforms. Second, fiber production although fluctuating over the years shows a declining trend recently. This reflects the crisis of raw material (white fiber scarcity very specific to Kerala which is mostly used for specific yarn production and finished goods) over the last decade or so (will be discussed below). However, growth rate of fiber at all-India level is still positive due to the availability of brown fiber (an

inferior quality fiber) outside Kerala, which is now increasingly used in place of white fiber. Regarding yarn production, the shortage of fiber may not directly impact yarn production (which is primarily produced in Kerala) as long as fiber is imported from outside Kerala. However, yarn production- particularly of superior yarns that is used for making of finished goods like mats and mattings -- is affected by the scarcity of white fiber exclusively produced in Kerala. This has brought down the production of yarn and coir products in total (as production of yarn also depends on global demand for specific superior quality due to which other lower varieties of yarn are not produced in large quantities if they are not in demand) in recent years.

Export data in Fig 6.4 (a), (b) and (c) below shows the pre-neoliberal reform and post neoliberal reform period of coir export from Kerala. Fig 6.4 (a) below shows the decline of coir exports between 1950 and 1980 due to the slump of global demand for coir (see Isaac, 1983) after the World War induced high demand period between 1920 and 1950. The fall in the Indian currency contributed to this fall as well (see Balakrishnan, 2005). This was also the period when Indian entrepreneurs took over the industry from the British after the country's independence.

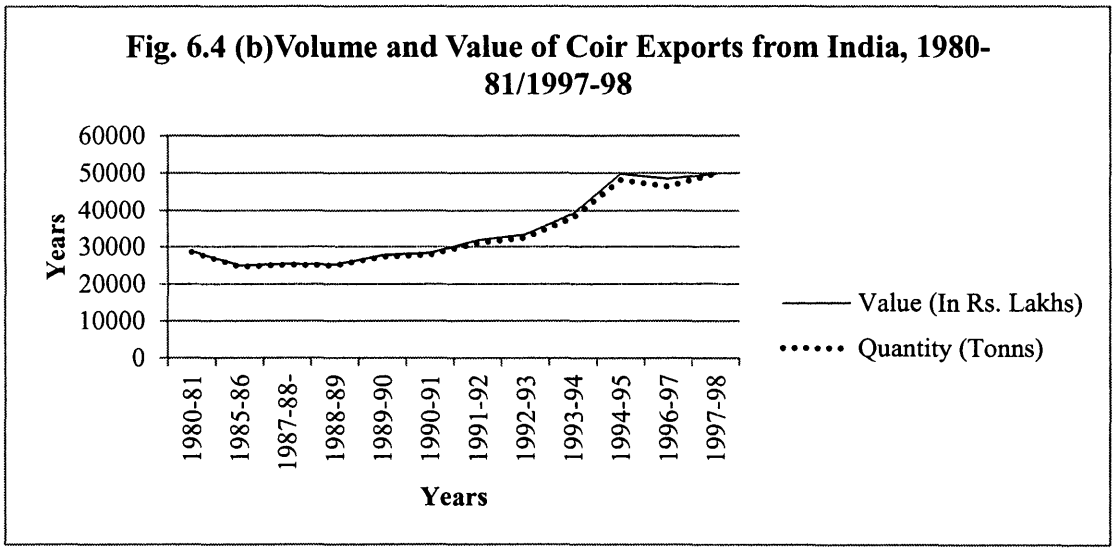
Fig. 6.4. (a) Volume of Coir Exports from Kerala*, 1954-59/1979-84



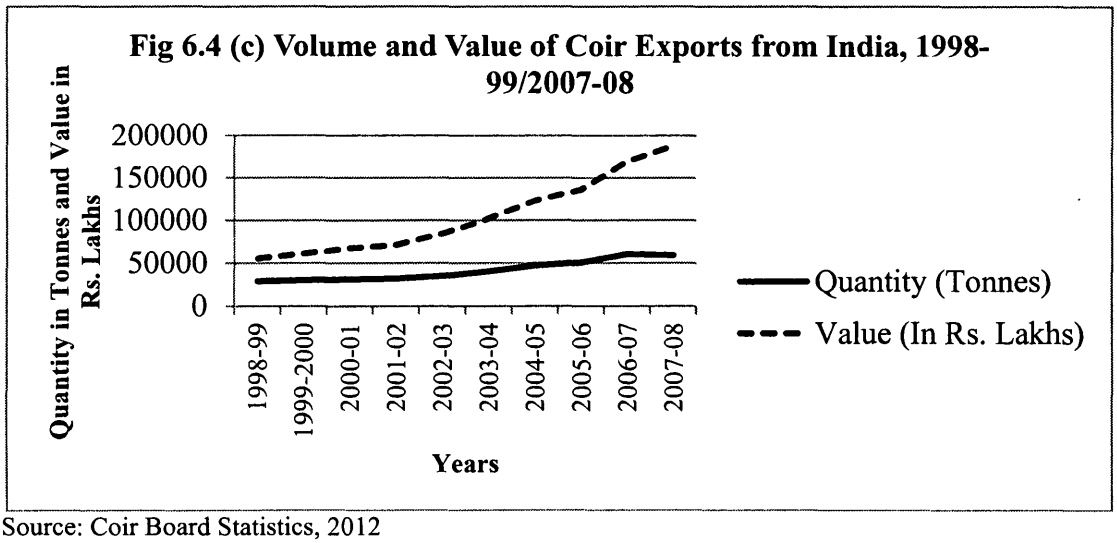
Source: Isaac (1990), Coir was largely produced and exported from Kerala. Data here also represents export (shipment) of coir from Indian ports (Coir is chiefly exported from Cochin Port).

However coir exports started picking up --both in quantity and value -- steadily from the 1980s peaking after the 1990s in the post reform period. Neoliberal trade reforms ushered in new prospects for expansion of the global market with new buyers (like US) entering the export market. Fig. 6.4. (b) below shows further rise in exports since the late 1990s. Coir products have seen a rise in production as well as exports in recent years (124.2 percent growth rate between 2009-10, Coir Board Statistics, 2012). Coir products have come to occupy the 3rd position after Cashew nuts and Seafood export, among the six major items of global export from Kerala (Coir Board Report, 2010). However, exports in terms of value have gone down in this period because of the fact that exports are comprised of more yarn and traditional items like basic mats and mattings, which are of

relatively lower in price than value added coir products.



Source: Coir Board Statistics, 2000.

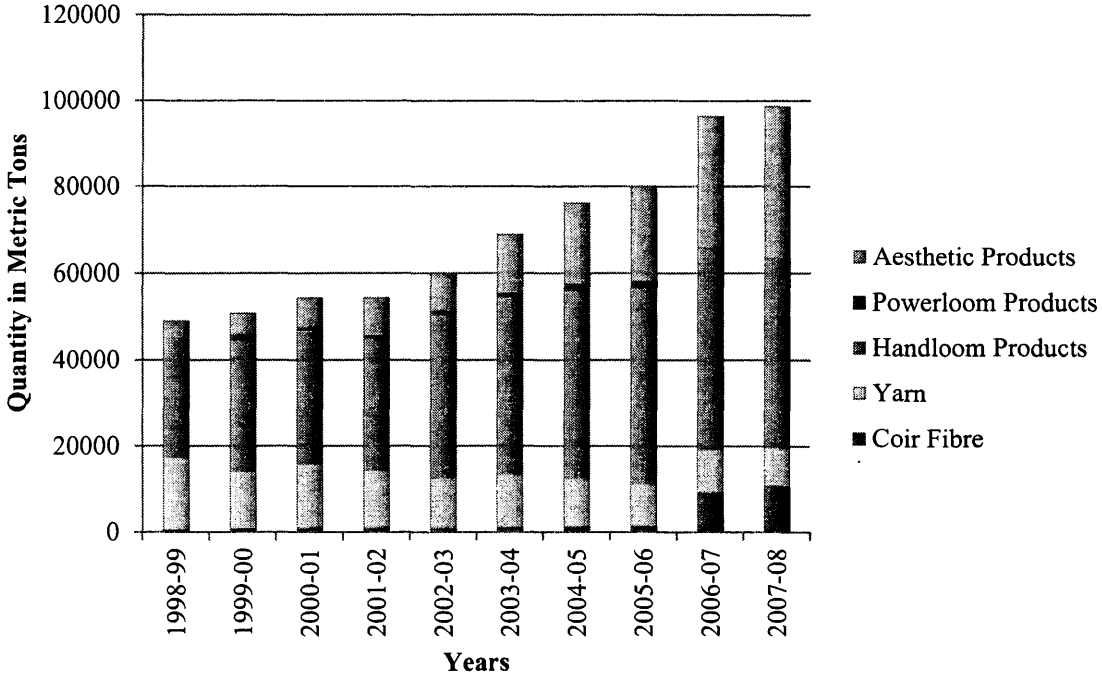


Source: Coir Board Statistics, 2012

Fig. 6.5 shows the item-wise export of coir between 1998-99 and 2007-08. While export of yarn has gone down in recent years, traditional items like handloom mats and mattings have maintained a steady pace. On the other hand, power-loom mats and mattings have

become an important export items along with value added items/aesthetic products like tufted mats and rubberized coir in recent years. Aesthetic products like coir rugs have also entered the list of exportable items. However, power-loom and value added products are recent developments in the coir industry and therefore still struggling to make a niche in the global market.

Fig 6.5 Itemwise Export of Coir from India, 1998-2008



Source: Coir Board Statistics, 2008. Aesthetic products are rubberized coir, coir rugs and tufted mats.

6.5. Productivity and Technological Change:

The increase in demand for coir products globally in recent times have triggered technological changes in the coir industry which although have had increased the

productivity per unit of production are met with contradictory outcomes. The following section discusses some of these aspects.

a) Productivity[177]**:** Based on the data we have discussed so far, the global market for coir has seen an expansion over the last two decades after the neoliberal trade reforms in the 1990s. Increased market demand for coir requires increasing productivity of labor per unit of production. Coir production (fiber, yarn and basic mats)[178] in the traditional manual method is now increasingly seen as unsustainable for three reasons: first, even when production levels could be attained by employing more labor at low wages (due to the surplus reserves of labor available), the productivity levels per unit of production need to increase to keep up with the growing and changing needs of the market. Second, the traditional techniques of production have not increased the capital outlay at the hands of small and medium producers due to longer time taken for turnover of invested capital. Also small and medium scaled producers are not in a position to invest in expanded production. This then put constraints on the scale of production and investments in modern technologies (see Rammohan, 1999). Third, with the new emphasis on value added production in the industry in recent years, 'quality' of production has been a major focus, the common belief being that machine made production is superior in this regard than the traditional method.

[177] Data on stagnancy of productivity over the years in the coir industry is not available.
[178] Mattings are generally produced in state run factories, large producer's co-operatives and the big export factories.

The traditional method of coir production (raw material extraction and defibering, spinning and production of basic mats) involves longer time and more labor for production. For the defibering process:

> "In the traditional practices of defibering a bundle or *maali* measuring 10 meters in diameter would yield fiber close to a 1000 kgs from defibering 10,000 coconut husks which will yield 950 kgs of spun yarn. However, the process is a long one, involving four workers to make one bundle in four hours." --Interview with owner of defibering unit in Thuravoor, Alappuzha.

In the spinning process:

> "In a traditional setting one *ratt* [spindle] will employ three workers who will produce a total 36-40 kgs of yarn at the end of the day. Therefore the individual productivity of one worker will range from 13 to 15 kgs of yarn a day, which may vary depending on the dexterity of the workers and type of yarn spun." -- Interview with Coir Co-operative Society secretary in Muhamma, Alappuzha.

In the basic mat weaving process:

> "One worker who works on a handloom for a day produces a maximum of two small door mats in a day. However, there are additional two to three days of preparation (like splicing, spooling, bleaching of yarn etc.) for which additional 2-3 workers are needed. Also, in a traditional handloom, it is not possible to weave mats in a running length and has to be produced in pieces and is time consuming. Also the nature of labor in a mat or matting loom is very physically straining. So, a worker cannot continue working beyond a certain point." -- Interview with owner of handloom unit in Pathirapally, Alappuzha.

The traditional method of production not only involves more workers and time but cost of production (wages) is also high given the slow rate of production. For instance in the defibering processes:

> "The cost of defibering or extracting raw material in the traditional manner involves higher costs (about Rs 8000 per bundle) for a small unit. But this is an one time investment, the returns of which could take up to 8-9 months to realize [*retting* or decomposition of the fibre extraction process takes this amount of time." -- Interview with owner of defibering unit in Thuravoor, Alappuzha.

Additionally, yarns or products (mats) are now increasingly rejected for exports or in furthering the process of finished goods due to the imperfection in size, shapes and

general quality of manually produced items. Such conditions do not live up to the pace of an expanding export sector of the industry.

b) Technological Change: The mechanization of the existing process of production has been initiated by the state of Kerala to meet the market demands for increased productivity and production of coir. The introduction of mechanization in the industry among other things is also argued to have the potential to aid the process of value added production for export (see Isaac, 1990). Generally, between the two sectors/branches of production in the coir industry, mechanization or technological innovations are privately initiated in the factory based finished goods sector controlled by the big exporter-producers (based on fieldwork observations). The rest of the industry including private small and medium scale units and state run co-operatives in the raw material processing-extracting sector and partly in the finished goods sector, respectively, are dependent on government subsidized mechanization initiatives (Coir Board Report, 2008). As seen in the previous chapter, most producers of fiber and yarn are small producers whereas mat producers are medium scaled producers. The small producer (generally women) has a working capital as low as Rs. 5000 with which she can afford one or two manual spinning wheels and carry out the spinning process using family labor. Similarly, as seen above, a small scale defiberer or *retter* can invest about Rs-8000-10,000 at one time for *retting* or defibering process. Although, certain medium scale producers (producer's co-operative) who have spinning units employ 30-35 workers with

a working capital of Rs.10-15 lakhs, these are quite fewer in numbers[179] compared to that of the number of small producers who work independently in household units. On the other hand, the big exporter-producer, invests in expanded technological production only in the sphere of value added production. They do not invest in expanding their scale of operations in the other processes of production as mentioned above due to comparative cost advantages as will be discussed below. Also, the history of worker's struggle against mechanization in the coir industry in the past (see, Isaac 1982, 1983; Kannan, 1999) has contributed towards many big exporters being reluctant to expand their production ... esses in the raw material extraction and processing sector. The state under these ...umstances therefore had to step in to subsidize and regulate the costs involved with te nological production in the industry.

The mechanization process has been argued to have increased productivity, helps in reducing unit costs of production as well as contributes to higher returns on investments and wages. In terms of productivity in the raw material extraction process (as mentioned above), by using traditional manual processes, a worker de-fibers 150 husks per coconut in a day by hand (Isaac, 1992). This is the norm of the raw material extraction industry. An estimate of technological up- gradation in the coir industry is argued to have raised the productivity to 400 husks by a 'decorticating'[180] machine and

[179] Data on number of producers and workers are not available as disaggregate data due to the informality of the production process.

[180] Automatic machines for defibering of husks to extract fiber.

about 625 husks by advanced combing techniques (Isaac, 1992). As seen in the field, in the defibering sector:

> "Earlier 10,000 husks [one *maali* or bundle] required 100 days or 100 workers in a day to produce of fiber yarn by hand. A bundle of 10,000 husks yielded 900-950 kgs of coir fiber and when processed or spun produce about 800 kgs [approx.] of yarn. Now with the help of a mechanized decorticator, 15 workers can make a bundle in a day or 1 worker per day in 15 working days." -- Interview with owner of defibering unit in Thuravoor, Alappuzha.

In the spinning sector, the government has subsidized the cost of semi-mechanized ($1/4^{th}$ HP power) spinning wheels or motorized *ratts* which is more productive and cost effective:

> "Semi mechanized spinning wheels involve only one worker per wheel producing a fixed minimum of 8 kgs a day. In the case of a yarn co-operative in the traditional manner only 5-10 spinning wheels could be installed. The new government scheme of subsidies allows a co-operative to install more than 100 spinning wheels." -- Interview with Coir Co-operative Society secretary in Muhamma, Alappuzha.

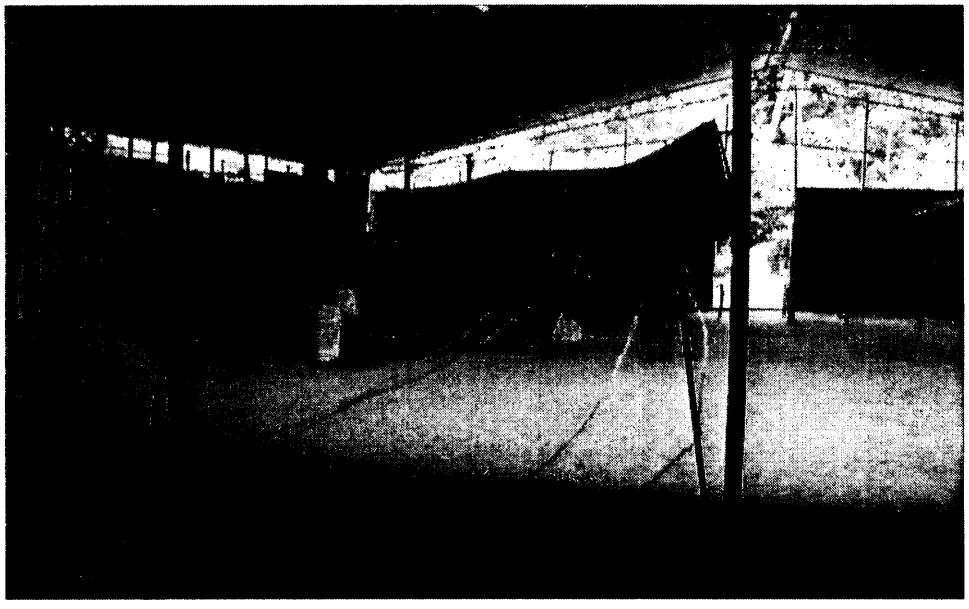
In the case of the basic mat weaving processes (Image 5 above), state subsidies to install semi-mechanized looms have also been argued to be time effective and productivity has improved.[181] The versatility of the mechanized looms (like Pneumatic loom) to produce all types of mats and mattings in one loom allows per unit productivity to increase (based on field interviews).

On the cost front, mechanized processes are seen to have decreased the costs of production (both in terms of capital investment and wages) compared to the traditional method, for some processes thereby increasing the returns on investment. Based on a summary of a number of interviews it was found, that in the case of manual defibering

[181] Although this cannot be generalized for the industry as a whole as seen in the field, technological improvements have only been introduced in few units of relatively well of producers, which are not yet significant in number.

processes, mechanization yields more in less time and for lesser costs. One quintal of fiber by traditional practices would cost close to Rs 1500 against the mechanized processes, which now cost Rs 300-400 less.

Image 4: Women Spinning Coir Yarn in Co-operative Sheds



Source: Photos from Fieldwork

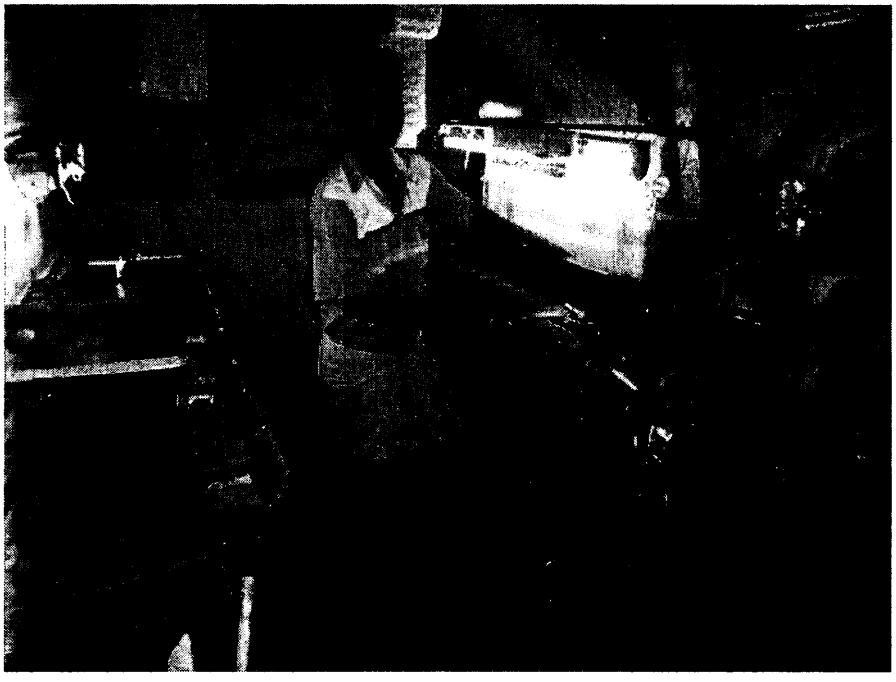
Also wages are reduced by half, due to lesser number of workers needed in the mechanized process. On the other hand, in the mechanized spinning processes it was found that although total costs of production increases initially, it is evened out later through the high price that mechanized yarn fetches compared to handmade yarn:

> " Cost of production of yarn by manual practices involves less price even when more workers are used as wages commensurate with lower skill levels required for such jobs. Mechanization processes (full mechanization) involve additional technical costs like electricity, depreciation costs, repair and need of improved skills in workers, which raises the initial costs of production. However, mechanized yarn fetches more returns -- Rs. 3000-35,000 per quintal due to improvement in quality against the traditional variety, which fetches Rs.1500 to 2000 for the same unit. Also, returns per unit (per quintal) increases from Rs. 500 to Rs. 1000, which is almost

> double the initial investments and that too in less time." -- Interview with Coir Co-operative Society secretary in Karthikappally, Alappuzha.

Other than improvements in costs and wages, mechanized fiber or yarn is also more favorable for value added production. In other words, state aided mechanization processes have been able to increase productivity per worker, cost advantages, per unit returns and quality of coir raw materials and products to some extent in the short run. The question is then how sustainable are these processes over the long run.

Image 5: Workers on Semi-mechanized Handloom



Source: www.nfhdc.nic.in

c) Contradictions in Technological Change: While the state's support for technological changes in the small and medium scale processes has been successful to some extent in raising productivity of labor, the sustainability of the process of

technological change (increase productivity of labor at an even scale in all sectors of the industry) is conditioned by a host of contextual factors specific to the production structure as well as the underlying relations of production associated with it. As seen in table 6.2 below, the inconsistency of the mechanization process in the industry is evident form the table (6.2) below. There has been an apparent contradiction in the availability and utilization of mechanized technology available in the industry.

Table 6.2. Availability and Utilization of Traditional vs Mechanized Equipment in Different Category of Producers, 2008

	Exporter-producers		**Small/Medium - Scale Units**		**Co-op Societies**	
Spinning Wheels	%Used	%Idle	%Used	%Idle	%Used	%Idle
Traditional Spinning Wheels	40	10	76.9	23	35	355
Semi-mechanized Spinning Wheels	15	0	96.7	4.3	46.8	832
Mechanized Wheels	19	0	67.7	32.3	18.2	584
Traditional Mat Looms						
Less than 1 meter	0	0	101	10	86	96
1-1.5 meters	0	0	162	11	66	19
2-3 meters	0	0	120	27	41	9
4 meters	0	0	8	14	0	0
Traditional Matting Looms						
Less than 1 meter	97	3	0	0	119	74
1-1.5 meters	82	34	0	0	141	50
2-3 meters	72	27	0	0	250	62
4 meters	26	1	0	0	46	9
Semi-mechanized	24	12	0	0	4	2
Power Looms						

Less than 1 meter	16	3	1	0	0	0
1-1.5 meters	35	7	9	0	0	0
2-3 meters	27	4	8	2	0	0
4 meters	14	0	0	0	0	0

Source: CSES, 2008 *here some smaller exporter-producers who engage in some degree of spinning of yarn are listed, but the big producers do not generally engage in spinning activities. U-Utilization, A-Availability

Recent statistics show that so far as the mechanization process is concerned, the coir yarn co-operatives have now only 25 percent of traditional manual *ratts*/wheels compared to 49 percent of HP[182] motor ratts/wheels and 24 percent mechanized ratts/wheels (Coir Board Report 2008; CSES, 2008). However, the total rate of utilization of mechanized *ratts* in these co-operatives is only 23.7 percent of the total and about 35 to 50 percent of spinning is still done with traditional or semi mechanized *ratts* (CSES, 2008). On an average only 12 *ratts* are utilized and 40 kept idle per co-operative society in Kerala at present (CSES, 2008). While this is the condition of the co-operatives, in privately run medium and small scale units too, although 52.9 percent of such units rely on *ratt* spinning (mechanized or semi mechanized) 40.3 percent still rely on hand spinning which is an important point as hand spinning is less productive compared to the other means of production (CSES, 2008). Most small-scale spinning units have only one or two *ratt*/spinning wheels (field work observations). Semi mechanized *ratts* using ¼ HP are subsidized by the state but has to be purchased by the medium or small units themselves (based on interviews). Out of the 33 mats and mattings co-operative societies (medium to small scale weaving units) in Kerala, only 6 matting looms are semi-

[182] HP is Horse Power.

mechanized while the mat looms are hand operated (CSES, 2008). Handloom weaving of mats and mattings is time- consuming as well as less productive as seen above. In case of handlooms, small looms which can produce mats up till one meter in size is used in about 61 percent of the medium and small scale units each unit having maximum of one loom running on an average (CSES, 2008).

There are a number of reasons that explain the inconsistency between availability, differential access to and utilization of mechanization in the coir industry. Employers' use of technology with the intent to increase labor productivity or to increase extraction of surplus value or to discipline labor depends on specific contexts over space and time. The geographical and temporal variations of these contexts produce uneven outcomes in the development of productive forces across the two sectors of the industry and among its main classes.

First, the rate of productivity increase through state aided mechanization process for enhancing valued added production in the coir industry depends on the availability of sophisticated technology comparable to that of the capitalist exporter-producers. State aided mechanization processes are concentrated specifically in the raw material sector, although state provides subsidies for mechanized looms in the basic finished goods sector as well. However, state aided machineries cannot compete with the advanced machineries in the factories of the large-scale exporter-producer:

> "We are producing very elementary mechanization techniques [in the form of quality and efficiency of machineries] so these can be subsidized for household or own account units in the spinning sector. The government doesn't have budget allocations for R&D on advanced machinery. We also don't have much infrastructure -- in regard to manpower and facilities -- to carry out such operations. We do import some locally produced machinery from Karnataka and

> Tamil Nadu [neighboring states of Kerala]. But these or any other produced in India cannot match the sophisticated technology employed by the exporters. The big export houses have advanced powerlooms and jaquard looms, mostly imported from outside India which are highly efficient and versatile." -- Interview with Government officer in National Coir Research Institute in Paravur, Alappuzha.

Large-scale power-looms imported from foreign countries cost as high as Rs. 5, 60000 (USD 10,000) to Rs. 20,00000 (USD 10,000), other than additional costs of installation, transportation and depreciation.[183] The large-scale factories in the field have about 15 to 20 semi automatic and fully automatic power looms. Power-looms are used for value added products as well (rubberized coir products, tuffted mats etc), which have higher export demand than traditional products. A large-scale export house that employs 300-500 workers and owns different forms of machines and power-looms is a fairly big capitalist venture with which the state cannot compete (as seen in the field).

Image 6: Factory Based Power Looms

[183] As seen from prices indicated in www.indiamart.com and cited in the field.

Source: www.draksha.com

Second, the degree of technological change also depends on the ability of small and medium scale producers to invest and sustain the cost of machineries and other investments, which varies relatively according to the economic positions of employers. As evident from table 6.2 above, the availability of relatively advanced machineries (power-looms of 4 meters and above and mechanized spinning wheels) are concentrated in the factories of the big exporter-producers and better off middle producers, whereas, co-operative societies still utilize traditional techniques of production. Recent statistics (based on a sample of the large scale production units) suggest that despite the intermittent fall in the production and export (based on demand) of power-loom mats and mattings in recent times (as evident from data above), 92 working power looms in the top large scale factories have a utilization rate of 100 percent (CSES, 2008). While the state has introduced semi-mechanized looms for co-operatives in the finished goods/weaving sector, the medium scale units in this sector still largely rely on handlooms, as semi-mechanized looms and power-looms are not affordable for these producers and state sponsored looms are limited in availability as well as in efficiency (based on field interviews). Even though the government subsidizes mechanized wheels and looms to a great extent, the current interests on loans/credits (12-15 percent) to buy these machines and the declining prices of coir in recent years (due to withdrawal of state protection of floor prices, Kalamani, 2008) make such mechanization initiatives economically unviable for small and medium scale units.

> 'The total cost of setting up a mechanized defibering unit in the industry is between 12-15 lakhs. This includes apportioning Rs. 8 lakhs for machinery and equipment and Rs. 3-4 lakhs for infrastructure (land, buildings). Additionally Rs. 1-2 lakhs are required for labor wages and other miscellaneous costs. Such an unit has a capacity of producing 300-500 tons of fiber per annum with a selling price of Rs. 3,500 (approx. per ton). The state contributes 20 percent of subsidy in soft loans and 65 percent in term loan (micro-finance, public-private initiative etc.), while the remaining 15 percent has to be borne by the producer.' -- Coir Board Report, 2012.

Similarly,

> 'The standard cost of setting up a mechanized spinning unit is Rs. 2 lakhs including machinery costs (1 lakh) and other costs (1lakh). The financial assistance or government grant/subsidy would be 40% of the project cost subject to a maximum of Rs. 80,000 (Rupees eighty thousand only) per unit. The project cost of Rs. 2 lakh would include 5% beneficiary contribution and 55% term loan, subject to a maximum of Rs. 1,10,000/-, from the designated Bank.'
>
> 'For setting up a micro-financed spinning unit at the household level, the total cost is Rs. 5 lakhs (including Rs. 3 lakhs for machineries and remaining for tools, accessories, equipments, work shed etc.). The financial assistance or government grant/subsidy would be 40% of the project cost subject to a maximum of Rs. 2,00,000 (Rupees two lakh only) per unit. The project cost of Rs. 5 lakh would include 5% beneficiary contribution (Rs. 25,000) and 55% term loan, subject to a maximum of Rs. 2,75,000, from the designated Bank.' -- NSIC Report, 2010.

The statistics above suggest that an investment of Rs. 2-4 lakhs is required to be provided by a small -scale producer for setting up a 'fully mechanized' defibering or spinning unit. As seen in the field, an average small-scaled household producer cannot invest more than Rs. 50,000 (on an average) for setting up an unit. This is also at the expense of mortgaging current assets or life savings. After exhausting the possibilities of state assistance, which is outlined above, an independent producer or members of a micro-finance group have to garner the additional funds on their own. This involves credit based personal loans and other transaction costs. The aggregate costs, possibilities of incremental costs and the risks involved with market demands inhibit small or even a relatively medium scale producer to invest in such expanded processes. Medium scaled producers' co-operatives generally have 10-15 Rs. lakhs as working capital, but such

investments are also not possible on their part due to irregularity of work and deregulation of the industry as mentioned above. Very few medium scale property owning producers can take the risks of investing in such processes, but this is also very rare as seen in the field. However on the other hand, opportunities of subsidized mechanization schemes are now availed by small 'capitalist' producers from outside the industry who have started diversifying into such processes due to recent rise in exports of coir. They can handle entrepreneurial and market risks relatively better than the small and medium scale property owning producers due to their better off economic positions, which is backed by the presence of other sources of income from outside the industry. Such tendencies then lead to uneven development in terms of technology access and utilization based on relative class positions.

Third, the dominance of relatively small or medium scaled capitalist employers or non -capitalist property owners in the industry compared to the few big capitalist employers, do not provide enough incentives for expanded technological change. Studies have pointed out that unless there is sufficient concentration of the means of production, or in other words, there are fewer owners controlling and owning property and resources, expanded accumulation (through technological development) by private property owning producers may be inhibited (Das, 2011: 9; also see Starosta, 2010). In the case of the coir industry, despite subsidized machines made available to the small and medium scale units (both private and co-operatives), these producers cannot afford to take the risks of expanding their scale of production under fluctuating market conditions. This is because

the total value of assets in their units (even after mechanization) will yield lower returns if liquidated (in circumstances of financial distress) under volatile market conditions when demand for coir is low. This will yield them a lower return on their initial investment, even lower than the profit they can have made using the traditional method under such circumstances.[184] Additionally:

> "These processes have to take into account factors like uninterrupted supply of raw material in the form of husks as well as the ability of small spinners to consume and sustain cheaper supply of fiber through increased productivity. And even if they do so, they should be able to market their surplus production at cheap prices. More often than not, small producers are not capable of doing so, because they do not control the production process or the supply of raw materials and cannot sell their products on their own." -- Interview with Researcher in Alappuzha.

As long as the state protects and aids the risks and liability costs of such processes, small units and co-operatives can bear the burden of short-term devaluations (see Rammohan, 1999). However, de-regulation of the coir industry after the 1990s meant that market prices for coir or risk outcomes of market conditions are no longer protected by the state. Selective withdrawal of the state in decisions related to financial aid and industrial regulation in recent times has posed serious concerns for the sustainability of such mechanization projects for small and medium scale producers in the long run. As a coir co-operative president in Alappuzha said --"before, any additional interests or risk burdens were looked after as part of government schemes, now we have to bear all costs ourselves. The state's role ends with provision and subsidization of machines". Another important reason here is that, there is no great socio-economic difference between workers and medium or small-scaled employers who hire wage labor from their own

[184] See Starosta, G. (2010) for a conceptual explanation of the valorization process of small capital in global commodity chains.

communities along with family labor. Under such circumstances, incentive for technological up gradation to increase productivity and surplus value is less when medium and small scale employers have cheap (family labor or hired labor), abundant and relatively docile labor force [185] at their disposal. This in other words means less resistance of workers to exploitative work and wage conditions, which is less in terms of incentives for the employer to introduce technological changes, either to discipline labor or increase surplus value.

Fourth, the rise in technology driven productivity of labor in the absence of a domestic market runs the risk of crisis of overproduction in the long run. Even if middle scale producers (and their co-operatives) or self help groups of small producers can make investment in mechanization under special circumstances (if state subsidy is increased or more credit is made available), the consequent increase in labor productivity by technological application (machine aided production) will cheapen price of products over time because of decreasing cost per unit and operation of economies of scale. This would be ideal if small or middle producers could effectively sell their products independently in a ready domestic market based on effective demand for specific consumer goods. However, these small and middle producers and their units are tied as branches in a large production structure (as in the coir industry) and their products are only intermediate parts of a larger product chain (the coir commodity chain). Cheapening of prices runs the risks of over-production (at their scale of operation) if the domestic market is not

[185] See Das (2011) on the nature of capitalist development in India.

expanded in the course of time.[186] Aspects of mechanization driven over-accumulation have already been experienced by some producers in the industry which have led to distress sell of their products at prices lower than that prevailing in the market:

> "'I invested in one mechanized coir spinning wheel when the machines were introduced at low price. Immediately, I could see that I could produce more in less time and even when the prices for the coir yarn is currently low, I could make a decent income with the increased production levels. I thought about investing in another wheel and hired a few more workers to work on these. But, then the market went down and prices stagnated. I was left with a lot of unsold yarn that I later sold at much lower price to a dealer [middlemen]." -- Interview with medium-scale employer in Thumpoly, Alappuzha.

On the one hand, small producers are now increasingly faced with competition from commercial defiberers and yarn spinners from outside Kerala (Tamil Nadu and Karnataka).

> "Producing a quintal of fiber by using mechanical defibering machines costs Rs. 1300 (aprox.). However, comparatively similar quantity of fiber can be bought for cheaper rates (Rs. 1200) from Tamil Nadu. Of course, rate of fiber is higher in Tamil Nadu, if we go by the manually produced fiber in the traditional method. So, which option is more cheaper?" -- Interview with President of Coir Producer's co-operative in Arratuvazhy, Alappuzha..

Such competition may drive technological change, but rise on productivity of labor and cheapening of prices without a ready domestic market may only contradict the outcomes of such technological change.

Fifth, government aided mechanization processes for small capital impacts surplus value accumulation with big capital. The presence of a large reserve army of labor prevents the big exporter-producers from investing in expanded technology

[186] The scope for the expansion of a domestic market is limited as the entire production even under conditions of increasing productivity will be ultimately used for export even though efforts are being made by the Kerala state to expand the domestic market for coir products (other than coir yarn in its basic form which has a very domestic markets of low returns). This is one of the reasons, why the state in Kerala is actively pursuing in the creation and expansion of the domestic market for coir in recent times (Coir Board, 2012; The Hindu, several editions).

throughout the industry, as production costs are relatively low due to employment of cheap labor. However, despite this fact and other contradictions inherent in state aided mechanization process, one may ask why the state still continues to push mechanization for increasing productivity?[187] An analyses of field observations and interviews reveals the following explanation: The rate of productivity in the spinning and the medium scaled weaving processes has increased to some extent due to the government aided mechanization drive as seen in the interview excerpts above. Increase in productivity in turn lead to an increase in the income of small producers, howsoever nominal, other things remaining constant over a certain period of time. However, this is where contradictions become apparent. Processes of mechanization in the spinning sector yield more yarn per unit. This results in the reduced per-unit prices of coir yarn. This increased quantum of coir yarn available now becomes raw material for the middle level producers who produce mats using handloom. The increased availability of coir yarn yields higher output of handloom mats, which then become raw material for the advanced value-added large-scale units owned by the big capitalists, this raw material which now costs less to the medium and large-scale producers than before the technological changes happened. Also, the increase in the amount of raw material supply allows production of finished goods on a larger scale than before. Given that the large-scale units are mechanized, the per-unit cost of production decreases with increased production itself. Therefore, increase in raw materials (in this case, coir yarn for handloom mats and then handloom mats for

[187] See Starosta (2010) and Smith (2010).

value added production) makes available greater revenue for big capital, leading to concentration of capital in their hands. Therefore, government aided mechanization processes serve the larger interest of capital accumulation in the hands of the capitalist class in the industry while the distribution effects of such processes are at best partial for the numerous small and medium scaled producers.

Sixth, technological change, as studies (Smith, 2010; Das, 2011) have indicated, is more a strategy of labor control by employers than anything else. This is perfectly attributable in the case of the coir industry, given the long history of working class struggles against capitalists. Also as Das (2011) points out: "given the division of labor, one sector or sub-sector can have a tight labor market in response to demand for its products from another sector or sub-sector' (2011: 9). In the case of the coir industry, the recent increase in demand in global markets for value added products -- produced in the factory of big capitalist producers -- also increases the demand for skilled workers (largely male workers and weavers) in this sector and the basic goods producing sector. Concentration of skilled male workers (due to the requirement to operate handlooms or power looms) in this sector also increases the possibility of worker's resistances for better wage and work conditions. This may be one of the reasons why the big capitalist exporter-producers have completely mechanized the valued added advanced finished goods sector to minimize labor costs and to keep worker's resistances at check; other than reasons of market driven necessity for productivity increase.

Seventh, there are many other additional factors, which have not been taken into account in the state mechanization initiatives. Other than market stagnation, locally specific conditions like presence of middlemen, weather conditions and local credit relations condition differential access to the mechanization process and its sustainability over time:

> "The dealers take an extra commission from the price paid to me. Market conditions as well as the presence of these brokers always take away a part of our incomes. So, having more than one mechanized wheel doesn't seem a good investment in the long run. At least we can control losses incurred on small scales of production if we stick with the older method of production' -- Interview with small scale producer in Pathirapally, Alappuzha"

> "We do not have enough work throughout the year. But we thought that we might get more work if we invest in a ¼ HP *ratt*. Of course we can do work a lot faster than before and can produce more, but this is only during the dry season and when work is more regular. Spinning is mostly done in the open yard. We cannot spin during the monsoon season due to heavy rains. That will need additional investments on a work shed and storage place. All those are beyond our capacity." -- Interview with small Scale Producer in undisclosed location in Alappuzha.

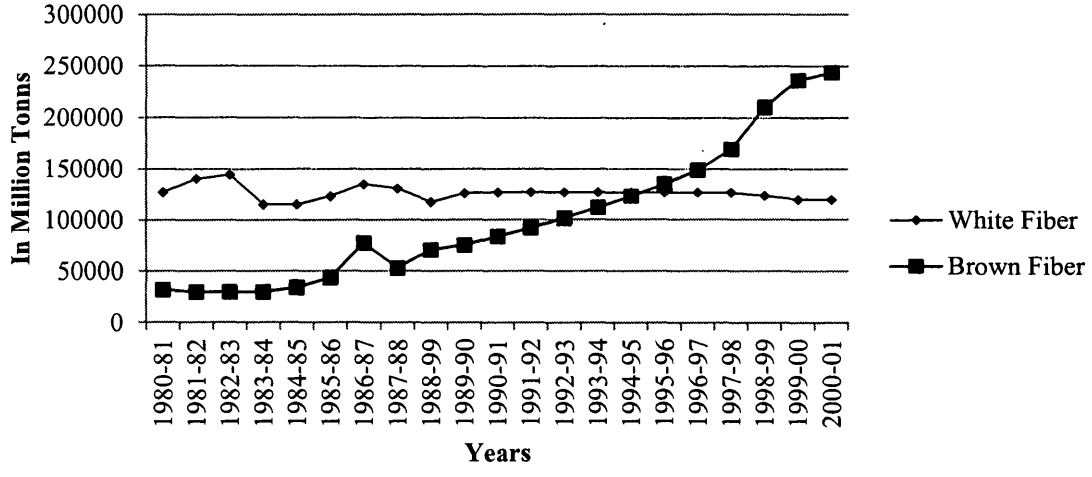
Moreover, while mechanization of spinning processes is supposed to increase levels of productivity in terms of output of spun coir yarn, sometimes it yields contradictory outcomes when compared to the traditional method:

> "There is a decline in per worker productivity because the machines are only used to a standardized quality of coir yarn, whereas the time taken for producing different types of yarn may vary. For instance, among 4 workers in the traditional manual method, 34-40 kgs of yarn is produced in a day. A mechanized wheel yields a standard of 6-8 kgs, which is 2 kg less than per work in the traditional method. If there were at least half a dozen of such mechanized wheels, then the productivity levels will match or improve the old standards. But how many units can afford that kind of investment. And even if they do, there are risks of displacing a lot of workers." -- Interview with secretary of a co-operative society in Cherthala, Alappuzha

Last, the scarcity of raw material limits the utilization rate of available technology, given the nature dependent aspect of the coir industry. An additional layer to the slow productivity and mechanization issue in the industry is the crisis of scarcity of the basic raw material for coir production-coconut husks and coconut fiber (not yarn

which is the processed raw material) (Fig. 6.6). This has led to inter-related series of shortages of raw materials at various stages -- scarcity of fiber due to scarcity[188] of husks leading to low yarn production, which means scarcity of raw materials for the production of finished goods like mats, mattings and other value added commodities. Kerala had remained the undisputed producer of white coir fiber (41.86 percent in 2006-07) and yarn until recent years followed by Tamil Nadu (26.6 percent) (Coir Board Report, 2008) but is now facing scarcity of raw material production (of both white or inferior quality brown fiber due to shortage in coconut husks). The common reasons cited for this shortage are as follows: first, certain environmental conditions like contagion of the dreadful root (wilt) disease and "eriophid mite" attack on coconut trees in Kerala have taken a heavy toll on coconut productivity in recent years.[189]

Fig. 6.6. Production of Coir Fiber in India, 1980-2001



Source: Coir Board, Annual Reports of Various Years (2) Coir Board(July-December 1993): "Coir",

[188] Kerala produces 1,30,000 metric tons of fibre at present while 86,000 tons are brought from outside (Official Estimates, Survey of Status of Coir Industry, KITCO, 2011).
[189] Kerala State Agricultural Prices Board, 2007

Halfyearly Journal, Kochi, Vol.XXXVI1, P.15. (3) Coir Board, India's ProductioIssues, Coir Housm:, Cochin

This has also led to a compromise in the production of white fibre, which is a specialty of Kerala.[190] Second, there has been a steady decline of land use for coconut cultivation recording a -0.59 percentage decline between 2003 and 2008 and a slow growth rate of 1.18 per annum (KITCO, 2012)[191]. This has led to decrease in the production of coconuts over the years. A third reason of fibre shortage even when husks are available is due to increasing export of fiber under new trade agreements like ASEAN[192] and entry of new buyers of fiber like China in the coir market.[193] New countries have entered the coir fiber market with some importing significant percentages of raw fiber. Indeed, some 110 countries have entered the coir export market scene in recent times (Coir Board Statistics, 2011):

> "China is an emerging buyer of coir fiber in India. In 2010 China imported a significant share (about 30 percent) of coir fiber and products from India compared to the rest of the other traditional global

[190] Out of the 300,000 metric tons of coir yarn produced in the world, 52 percent of this quantity is comprised as 'white fiber', which used to be produced in Kerala (Balakrishnan, 2005). The yield has considerably reduced up to 20-25 per cent after spread of the fungal disease called *Mandari* (KITCO, 2011).

[191] An investigation for the decline of coconut cultivation and decline of land-use for coconut cultivation was out of the scope of this dissertation. Nevertheless, sources and field interview cite falling prices and demand of agricultural products like coconut globally (Jeremy, 2007); increase of cheap imports due to lowering of tariff contributed by trade pacts like ASEAN (Association for South East Asian Nations); field work interviews suggests conversion of coconut plantations for real estate purposes as well as environmental problems like natural tree diseases, as few reasons.

[192] Association for South East Asian Nations (ASEAN)

[193] The recent free trade agreement of India with Association of Southeast Asian Nations (ASEAN) countries has brought in new dimensions like lowering tariffs and imposing new import regulations for building better overseas trade relations. The outcome of this treaty as anticipated in some studies might usher in competition in the form of increasing volume of agricultural and industrial products and substitutes at low prices that are produced in India. There is also the possibility of agricultural produces being increasingly exported to participating countries at low rates. This may impose crisis of profitability at current prices for agricultural producers and non-agricultural industries like Coir. See, Sumalatha, B.S and Roy, N.V.P (2010) ASEAN-India FTA: Kerala's Perspective, Economic and Political Weekly, Vol. XLV, No. 9.

> buyers. These are changing market trends in the industry. While countries like US import coir goods; coir fiber constitutes the bulk of China's imports from India or from the rest of the world." -- Interview with Government Official.

A fourth reason, cited by some participants of fieldwork interviews (this reason has not been cited in any sources of literature) is based on the 'possibility' of a relationship between scarcity of raw materials and mechanization in the industry which the respondents were not able to explain clearly. The crisis of raw materials was perceived more as a threat to productivity decrease rather than the contrary that productivity increase may lead to shortage of raw material.

The last reason is a plausible one due to the dialectical relation between raw material shortage and productivity increases due to mechanization.[194] Based on the discussion in the previous section above, it is clear that on the one hand, the drive towards technological revolution in the industry is increasing some level of productivity howsoever nominal, which in turn is consuming more raw materials for production of more goods in less time at every stage of production. Mechanization (howsoever nominal) of the raw material sector has increased the use of raw materials (as seen in the discussion in productivity above) and has triggered more demand for raw materials in quick times, leading to drying up of the primary raw material (fiber) supplies. Naturally then, if raw material (husks and fiber) is scarce, then spinners have to sit idle which in turn will make traditional weavers idle for lack of yarn to weave mats. This tells on the decline in productivity even when mechanization is available in the long run. The manifestation of such productivity-induced crisis of raw material in the coir industry still

[194] See Foster, 1994 and Burkett, 1999.

needs to be fully established. However, inklings of these are apparent in a few ways in the case of the coir industry: first, as seen in Table (6.2.) above, the utilization rates of spinning wheels, handlooms and power-looms suggest other than fluctuating demand for coir globally, also the fact that there is not much raw material to be worked upon. Second, the crisis of raw material has also contributed to the transformation of many small-scale producers in the raw material extraction and processing processes to close shop and join the ranks of the working class. Also, decreasing amount of work in the raw material processing sector puts pressure on wage incomes for workers due to unavailability of work.

> " I had installed two semi-mechanized spinning wheels in my unit. I work in the co-operative society but also work at home for third parties [private sub-contractor]. In the past days, a subcontractor would provide us the fiber to spin yarn. But now, this is not the case anymore. Fiber is scarce in the local supply market because of which fiber has to be imported from Pollachi in Tamil Nadu. The subcontractor doesn't account for those expenses anymore. I have to import yarn myself in addition to hiring workers. This was not possible for me to continue given current instabilities in the market and for reasons of affordability in the long run. So, I sold my unit and now only do coir work in the co-operative society." -- Interview with a small scale spinner in Haripad, Alappuzha".

> "Since spinning units have to import yarn from outside Kerala, employers of these units often cut wages of workers to reduce overall costs. Workers [mostly those working for informal units] cannot resist because finding work is getting increasingly difficult. Even in co-operative societies, members are not able to find enough work in a year, so whenever work is available in whatever small amount, they do not complain about the wages." -- Interview with ex-coir co-operative president in Chenganda village, Cherthala, Alappuzha.

The shortage of local raw material and its increasing price have led some producers to import the raw material and/or to use substitutes. For example, the crisis of the fibre scarcity has led to the purchase/import of 'brown fibre' from Pollachi -- a small town in the Coimbatore district of Tamil Nadu. Moreover, the shortage of superior white fibre in Kerala has led to the increasing use of 'brown fibre' bought both from Pollachi and

produced in small amounts in Kerala (Coir Board Report, 2012).[195] At the same time, in the finished goods sector the shortage of raw material supply has been tackled by substituting coir or combining available coir yarn with jute, grass fiber and sisal fiber to produce matts and mattings (corroborated by interviews and various Coir Board Reports).

An important determinant of such crisis of raw material is the rise of monopolistic control over available raw materials through high prices based on speculation, which also holds back available raw material from the market creating an artificial shortage and increase in prices (above the normal market rates) when it is made available. Also producers face other consequences related with issues of local monopolies as has been confirmed by interviews:

> "Brown fiber produced in Pollachi may be machine made but of very low quality. But we have to work with it because of the scarcity of white fiber. Transportation of fiber from Pollachi is very expensive. We have to spend Rs. 5000 to Rs. 8000 to get one lorry/truckload of fiber from Pollachi to Alappuzha. Also, now with Pollachi being the only coir fiber producer in the region there is lot of monopoly over prices and distribution and nor room for price negotiation. We always have to be on our toes to get our share of fiber before others take a major share away. We also have to get through a lot of middlemen before we get the fiber. Now yarn production units are coming up as well at Pollachi selling yarn produced from low quality fibre at low prices. This is a major threat to our survival." -- Interview with small scale Producer in Alappuzha.

In order to counter this monopolistic structure (both within and outside Kerala), state co-operatives for husk procurement has been set up since the 1970s. However, challenges were faced with the continuation of monopolies in the form of 'black markets' against government stated price policies (Isaac, 1990). More recently, the withdrawal of state intervention in the industry has led to instances of allowing 'liberal' permits to some of the private *retters* on the condition that they supply the co-operatives with husks at

[195] As Marx also stated that rise in raw material prices will lead to 'previously unused substitutes' (Marx as cited in Burkett, 1999:116).

notified prices.[196] But as employers in the field pointed out: "such practices lead to informal purchase and sale of available resources. If the stipulated price of one bundle of yarn is Rs. 15-20, it would be sold at Rs-40 in the black market".

Approaches to conserve non-renewable raw material like water have been implemented by the Kerala Government as well in the form of legal restrictions to counter over-usage of local water bodies. Water is needed at all stages of coir production in both the raw material extraction and processing and finished goods sectors. Current environmental regulations of the state require installation of advanced pollution control measures for coir *retting* (as mentioned above). Such measures require significant amount of monetary investments (based on fieldwork observations). While such investments are possible for large producers who have their own private water supply facilities, small producers and their co-operatives who have to rely on shared properties because of the inability to invest for infrastructural improvements face this as a major crisis for their existence[197]:

> "We have a large [shared] pond where we used to *rett* our own fibre. Now the pond cannot be used due to environmental regulations. We need money for sinking wells and installing pumps to draw fresh water to meet the required regulations. Even if a co-operative like ours can adopt some regulatory measures through government support schemes, the small scale producers can never invest large amounts of money into something like this." -- President of Coir Co-operative in Chenganda Village, Alappuzha.

Thus the irony of capitalist production and crisis of raw materials --on the one hand, the need for increased accumulation produces crisis of raw materials and shortage of non-

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[196] Cf. Isaac, T.M.T. (1990).

[197] Although environmental policies impose restrictions for all, those who can meet the requirements of the policies due to their superior class positions are allowed unconstrained access to restricted resources leading to failure of these policies in the long run (Burkett, 1999: 93-96).

renewable resources; and the measures to counter it only leads to further aggravation of the crisis on the other.

Clearly then, the necessity for export induced productivity increase is in apparent conflict with the production structure.[198] However, technological up-gradation of a higher order is not a necessity in the coir industry from the vantage point of capitalist accumulation as we have seen before. The existing production structure complements the extraction of surplus value at the hands of the exporter-producer class (as seen in Chapter 4) who through various combinations and innovations and through the aid of private capital (global or local) has been able to maintain their profits and expand their processes of accumulation.

6.6. Conclusion:

This chapter examined the simple labor process and contradictions in technological change in the coir industry. The two branches of the industry --raw material and finished goods -- incorporate the various stages of coir production in a vertical chain of product linkages from the extraction of raw material to the finished product. There are different types of labor power used in the coir industry ranging from skilled to semi-skilled to unskilled labor in the two main sectors. As Marx (1867) pointed out, the general distinction between a skilled and unskilled worker depends on what counts as

[198] Even though the export figures are aggregate figures, only 4-5 states in India engage in coir production, out of which the largest concentration of coir production and the finished goods production almost entirely (Tamil Nadu as an emerging state) concentrated in Kerala. Also, the biggest exporters are also based in Kerala.

skilled labor as well as the worker's ability to contribute towards extraction of surplus value as skilled labor is intensified, productive labor (Marx, 1867, Chapter 1, 7). From this vantage point, overall skill available or attained in the coir industry matters only in terms of increase in productivity of labor.

The different processes of production in the coir industry are spread out in geographic concentrations in four core districts of the state, which are identified as the coir belt in Kerala. The geographic concentration of certain production processes in certain places depends on the spatial division of labor in the industry. Also place-based specialization of particular forms of skilled/specialized labor, types of coir yarn and techniques used in the production of particular types of yarn also add to the geographical distribution of the production process.

The chapter also examined trends of coir production, productivity levels and exports. The production of coir in India has shown a more or less steady upward trend (except for coir yarn) in the last decade or so. Production of coir fiber and coir products has fluctuated over the decades with intermittent periods of high and low growth rates while coir yarn production on the other hand remained more or less steady. On the other hand, the export of coir yarn and products has increased considerably over the last three decades, particularly after the 1990s neoliberal reforms. Nevertheless, the increase in market demand for coir globally in recent years requires a corresponding increase in the productivity levels of labor per unit of production. Rising demand has to be met with increased levels of supply, which requires increase in production per unit in less time for

employers to remain competitive in the market. Also the emphasis on value added production in global demand for coir requires an improvement in the quantity as well as quality of coir production. Coir production in the traditional manual method is now increasingly seen as unsustainable because of low productivity in the context of global competition. This has prompted the state to introduce technological change in the technologically backward raw material sector of the coir industry.

While the state's support for technological changes in the small and medium scale processes has been successful to some extent in raising productivity of labor per output produced, the sustainability of the process of technological change (increase productivity of labor at an even scale in all sectors of the industry) is conditioned by a host of contextual factors specific to the production structure and the underlying relations of production in the coir industry. There are a number of reasons that explain the inconsistency between availability, differential access to and utilization of mechanization in the coir industry. First, the rate of productivity increase through state aided mechanization process for enhancing valued added production in the coir industry depends on the availability of sophisticated technology comparable to that of the capitalist exporter-producers. State aided locally produced machines have not been able to compete efficiently with technological standards comparable to that of the big exporter-producers. Second, the degree of technological change also depends on the ability of small and medium scale producers to invest and sustain the cost of machineries and other investments, which varies relatively according to the economic positions of

employers. Third, studies have pointed out that unless there is sufficient concentration of the means of production, or in other words, there are fewer owners controlling and owning property and resources, expanded accumulation (through technological development) by private property owning producers may be inhibited (Das, 2011: 9 emphasis added; also see Starosta, 2010). In the coir industry, the dominance of relatively small or medium scaled capitalist employers or non-capitalist property owners in the industry compared to the few big capitalist employers, do not provide enough incentives for expanded technological change. These producers often cannot afford to take the risks of expanding their scale of production under fluctuating market conditions unless protected by the state. De-regulation of the coir industry after the 1990s meant that market prices for coir or risk outcomes of market conditions are no longer protected by the state. Also, the lack of socio-economic difference between workers and medium or small-scaled employers who hire wage labor from their own communities along with family labor means less resistances of workers to exploitative work and wage conditions. This is less incentive for the employer to introduce technological change either to discipline labor or increase surplus value, when he has cheap, abundant and relatively docile labor force at his disposal. Fourth, the rise in technology driven productivity of labor in the absence of a domestic market runs the risk of crisis of overproduction in the long run. Even if middle scale producers (and their co-operatives) or self help groups of small producers can make investments in technology under special circumstances (if state subsidy is increased or more credit is made available), the consequent rise in technology

driven productivity of labor in the absence of a domestic market for the finished products, runs the risk of crisis of overproduction in the long run. Fifth, government aided mechanization processes for small capital impacts surplus value accumulation with big capital. The increase in the amount of raw material supply allows production of finished goods on a larger scale than before. Given that the large-scale units are mechanized, the per-unit cost of production decreases with increased production itself. Therefore, increase in raw materials (in this case, coir yarn for handloom mats and then handloom mats for value added production) makes available greater revenue for big capital, leading to concentration of capital in their hands. Sixth, based on the inconsistencies mentioned so far, technological change in the coir industry -- as studies (Smith, 2010; Das, 2011) have indicated in various other contexts -- is rather a strategy of labor control by employers than anything else. Seventh, other than market stagnation, locally specific conditions like presence of middlemen, weather conditions and local credit relations condition differential access to the mechanization process and its sustainability over time. Last, the scarcity of raw material limits the utilization rate of available technology, given the nature dependent aspect of the coir industry. The contradictory relationship between shortage of raw materials and capitalist accumulation leading to a crisis of productivity has been mentioned in Marx's work and in later Marxist works of Foster (1994 as cited in Burkett, 1999) and Burkett (1999). Based on such insight, it is analyzed that mechanization (howsoever nominal) of the raw material sector means that the use of raw materials (as seen in the discussion in productivity

above) is exhausted in quick times, leading to drying up of the primary raw material (fiber) supplies. Naturally then, if raw material (husks and fiber) is scarce, then the utilization rate of machines, even when available, will be low. This impacts decline in productivity in the long run and inhibits the mechanization process at an extended scale in the coir industry.

Employer's use of technology with the intent to increase labor productivity or to increase extraction of surplus value or to discipline labor depends on specific contexts over space and time. The geographical and temporal variations of these contexts produce uneven outcomes in the development of productive forces across the two sectors of the industry and among its main classes.

Chapter VII: State Development Policies for the Non-agricultural Sector

7.1 Introduction:

The state in India has an important role to play in the development of the RNFS. State policies have been playing an instrumental role in the economic development of the RNFS since the colonial to the current neoliberal period. Capitalism being the dominant mode of production in India, the state is a capitalist state, engaged in facilitating capitalist accumulation and protecting the interests of the capitalist class. The state is dependent on the capitalist class -- which are largely urban based -- for its material reproduction (Chibber, 2003; Das, 2007). Development policies of the Indian state in general are therefore largely biased in the interest of the capitalist class. State policies for the RNFS reflect the ways in which the Indian state facilitates larger capitalist interests by making the rural industrial sector a means to generate surplus – in terms of capital and labor – for the capitalist accumulation project of the urban capitalist class. In more recent times, the adherence to neoliberal principles for free market reforms and privatization of the rural industrial economy has resulted on the one hand, market oriented development in the RNFS but also have led to specific policies of the state for the RNFS to serve certain class interests in both rural and urban areas, on the other.

This chapter will examine the role of the Indian capitalist state in the economic development of the RNFS (particularly rural industrial processes) since the colonial period to the current neoliberal period. State policies concerning the rural nonfarm sector will be discussed over three time periods: the colonial era, the post-colonial state-led era

between 1950s-1990s, and the current neoliberal era. Periodization of state policies is important for documenting and analyzing the changing relationship of the state with society as the latter transforms itself with time. State policies will be considered taking into account the territorial form of the Indian state and its federal character. The federal character of the Indian state is manifested in the organization of the sub-national states in the various administrative provinces[199] of India. Although each sub-national province is obliged to the central state in terms of administrative decisions, they have their distinctive set of state policies. This chapter will, therefore, examine state policies in regard to the rural nonagricultural sector at the national scale as well as at the sub-national scale (Kerala).

The chapter is divided into five main sections following the introduction and ends with a conclusion. Section two examines the role of the colonial state in the emergence of a nonagricultural sector in general and a rural nonagricultural sector in particular both at the national and sub-national scales. The third section examines the goals of state policies in the promotion of a fledgling nonagricultural sector in the post-independence period between 1950 and 1990. This is followed by section four which examines the outcome of state policies in this period. The fourth section focuses on state policies aimed at implementing neoliberal reforms in the rural nonagricultural sector and their outcomes since the 1990s. The fifth section discusses the specific outcomes of this period. The chapter ends with a conclusion of the main points in this chapter. It is important to

[199] The different sub-national provinces are known as 'states' in India.

mention here that much of the data used in this chapter on state policies for the colonial and postcolonial state led periods are based on secondary sources and publications. Fieldwork data is largely furnished only for the neoliberal period post 1990s.[200] Overall lack of data on state policies in specific time periods specifically for the RNFS as well as the changing definitions of rural nonfarm activities in plans and policy documents poses limitations on theoretical analysis in this chapter.

7.2. State Policies in the Colonial Period (1800-1947):

The colonial state in India created conditions for the emergence of the rural nonagricultural export oriented traditional industries as part of colonial capitalist ventures. However, the development of the rural nonagricultural sector from the state's point of view held significance only if it aided the accumulation processes and trade requirements of colonial capital (Chaudhuri, 2008:140). Under such circumstances, the policies of the colonial state for the development of the rural traditional sector were biased in the interest of colonial capital and the state promoted capitalist development in the RNFS only in those traditional industries or sub-sectors of these industries that were directly under the control of the British capitalist class. This colonial structure of production created hindrances for the growth of the indigenous component of capital or the growth of local capitalist class, which was small-scaled in nature.

[200] The nonagricultural sector also grew to prominence only since the 1990s.

Although rural nonagricultural activities were an inherent component of rural agrarian societies even in pre-capitalist/pre-colonial societies in India, the potential of these activities in augmenting capitalist accumulation processes was somewhat realized only after the British colonizers invaded India in the later part of the 17th century.[201] The potential of the commercial aspects of rural cottage industries or the rural nonagricultural sector in boosting colonial trade and exchange were realized in the later part of the colonial era around 1850s. Studies (Baghchi, 1988; Tyabji, 1988; Bharadwaj, 1983; Dutt, 1992) however indicate that there was no clear distinction between the rural and urban component of such processes as well as strict categorization of agricultural and nonagricultural activities in rural areas.

There is dearth of data or literature that looks at the role of the colonial state in promoting capitalist development in the rural nonagricultural sector in particular. From the scarce occasional references to rural traditional or cottage industries (significant forms of rural nonagricultural activity) in some of the literature mentioned above, it can been said that the process of the colonial state's role in facilitating capitalist production for colonial trade of rural handicraft goods, led to the formal introduction (but not necessary promoted) of rural nonagricultural activities to capitalist system of production and exchange relations. The emphasis of the colonial state in financial or infrastructural

[201] The British commercialized the rural economy of India particularly the agricultural sector in many parts of India for agricultural exports from India to the colonies. Commercialization of agriculture led to change of labor-intensive to capital-intensive cropping patterns in many parts of India, releasing labor force from agriculture, which have been absorbed in rural nonagricultural activities. However, rural traditional manufacturing processes particularly catered to the direct needs of the local agricultural communities before the British colonial period.

support was however selectively concentrated in the larger sectors of colonial (mostly European) industries like transportation, plantation and army supplies, which were main sources of revenue for the British colonial state, which it remitted back to Great Britain (Bagchi, 1988-PE 45). State monetary aid to the rural traditional industry -- which was the main nonagricultural activity in rural areas at that time -- was constrained due to the fact that the scale of operation of such industries was very small and therefore did not generate revenue potential for the state. Also, since rural industries were largely home-based under the domain of small capitalists and middlemen, the state was reluctant to invest in such industries, as it believed that such activities were subsistence oriented and only suitable to cater to local needs (Tybaji, 1988: PE-54-55). The state however invested in infrastructural development (investments in built environment like roads, waterways etc.) to facilitate any production process that would facilitate the accumulation process of British capital in general. To some extent, this helped in establishing transportation linkages for traditional rural industries. The colonial state put indirect pressure on native rulers (kings, princes, administrators) of indigenous kingdoms or princely states, which were outside the direct control of the British administrative rule, for investment in road and water transport to facilitate the interest of colonial capitalist processes (Balakrishnan, 2005). The colonial state also provided patronage to colonial capital through enactment of factory legislations for the creation of labor forces for colonial industries in rural areas (Bagchi, 1988) as well as discipline labor through repressive labor regimes (Jeffrey, 1984; De Souza, 2011:5). Labor was controlled through the creation of debt bondage

relations -- between employers and employees --and labor recruitment was done through the means of local intermediaries like a local sub-contractor (Srivastava, 2005:10). This perpetrated early forms of informal labor market for rural industries during the colonial period (Bremen, 1996 as cited in Srivastava, 2005). Different forms of legislative support were also provided by the state for export import policies that roped in rural handicraft industries to British trading practices (Dutt, 1992:147).

The intervention of the British colonial state was important in the emergence of the traditional rural industrial sector in Kerala in the interest of colonial capital. Kerala was integrated to a global system trade and exchange of primary goods prior to the advent of the British in India. British capital supported by the British colonial state commercialized Kerala's economy -- both agricultural and traditional industrial sectors – by integrating its production processes to colonial trade and creating conditions for the development of capitalist relations of production. Kerala experienced an early commercialization of its agricultural and rural industrial sector as well as early proletarianization of its labor force due to the capitalist production for colonial trade (Parayil and Sreekumar, 2003: 472; Kurien, 1994:397). As Desai mentions, the native rulers and the native state under indirect control of the British colonial state encouraged and facilitated conditions for colonial capital investments in the rural manufacturing and cottage industries[202] (Desai, 2005: 466). The traditional rural industries in Kerala served as important avenues for revenue generation of the British state. The British colonial state

[202] The rural traditional manufacturing industries in Kerala are the main form of industrialization in the state till this date.

both in London and in Madras funded the international trade of manufactured goods from traditional industries like coir by setting up strong banking networks in entire southern India (including Cochin in Kerala) for easy flow of surplus (Hundred Years of Banking as cited in Balakrishnan, 2005:36). The colonial state also supported the initiatives of British capital to invest in railways from Cochin connecting to rest of India for internal transport of manufactured goods as well maritime international trade for coir by developing the Cochin port.[203] Other than supporting credit support and investment in built environments, the colonial state in London also supported export of manufactured commodities from traditional industries like coir from Kerala through trade legislations, exchange rates and tariff controls and establishment of international treaties (Panicker, as cited in Balakrishnan, 2005: 41).

As Balakrishnan (2005) observes, coir export and trade to London garnered revenue potential for the British trade particularly due to its already established pre-colonial trade relations to European countries.[204] State's support for developing the industry particularly during the inter-war period (1920-30s) was also due to the increase in the export of coir as part of war supplies (Jeffrey, 1984). The state offered aid through setting up of credit networks, trade regulations, building of transportation etc, to support coir trade from Kerala. However, state processes were selectively biased towards colonial capital. This meant that the colonial state did not make any exceptions to facilitate

[203] Kerala also had a larger number of joint stock companies of British capital invested in manufacturing activities and commercial banks supported by the respective governments in its two main princely states Travancore and Cochin (Oomen, 1976:26).

[204] As part of the Portuguese and Dutch trade relations in Kerala prior to the British.

capitalist economic processes, generate entrepreneurial skills in local small producers engaged in such processes or develop the domestic markets for local products (Balakrishnan, 2005). The colonial state considered rural industries like coir as an area of economic activity from which to transfer surplus from Kerala to Great Britain.

Although the colonial state was instrumental in the emergence of the rural industrial sector in India, some scholars have however argued that its policies were socially and geographically uneven in nature (Bharadwaj, 1982; Bagchi, 1988; Tybaji, 1988; Dutt, 1992). First, state enacted uneven trading and price policies, which impacted the stifling of production and import-export of indigenous commodities in favor of British products in India (Dutt: 1992:148). Second, the reluctance of the colonial state to provide financial support to rural industries was one of the reasons for structural inequality in the rural areas and obstructing the potential of capitalist growth in rural areas (Gough, 1977; Tyabji, 1988-PE54). Third, lack of institutional credit led to the growth of usurious money lending practices through middlemen in small-scale industries in rural areas.[205] Fourth, the colonial state also dwarfed the growth of domestic and international market for native entrepreneurs of small-scale enterprises to protect British capital from competition making it a dependent form of production process. This constrained the development of handicraft industries, rural artisans and small producers (Dutt, 1992). Last but not the least, the colonial state through its legislative practices also created unevenness between areas (different policies for industrial development in

[205] The state in many ways also supported such intermediaries as it facilitated appropriation of surplus from small producers for colonial capital without the state having to be involved in such processes directly.

different regions) and between sectors (between agriculture and industry in general and intra-sectoral differences between the domestic and British component of rural industries). Various local groups and classes – local moneylenders, brokers, sub-subcontractors – were roped into such projects of the state to work in the interests of colonial capital (Bharadwaj 1982:607; Bagchi,1988). The uneven political practices of the colonial state in favor of British capital, to some extent had adverse impact on the indigenous capitalist development of the rural handicraft and traditional industries in specific contexts and places during this time.

7.3. State Policies in the Post-Colonial State-led Development Period (1950-1990):

The state was a forerunner in India's postcolonial phase of economic development between the 1950s and the 1980s including the development of the rural nonagricultural sector. State policies towards the development of the rural nonagricultural sector were intended to remove the structural barriers of the colonial era, which hindered the economic development of the country as a whole as well as this sector. The economic development of the RNFS was seen as possible only through its integration to the large-scale urban industrial sector: the former would benefit from the spillover effects of capitalist development in the latter (Tyabji, 1980: 1980). Development planning of the state immediately after the independence of the country was primarily based on the advancement of the modern urban industrial sector. Rural traditional industries or cottage/handicraft industry was the only nonagricultural activity in rural areas that was

considered in state development planning policies. The potential of the rural nonagricultural enterprises (small scale traditional/cottage industries) in generating rural employment and its contribution to the national economy was adequately recognized in the industrial policy of 1948:

> 'The Government of India would, in this context, stress the role of cottage and village and small-scale industries in the development of the national economy. In relation to some of the problems that need urgent solutions, they offer some distinct advantages. They provide immediate large-scale employment; they offer a method of ensuring a more equitable distribution of the national income and they facilitate an effective mobilization or resources of capital and skill, which might otherwise remain un-utilized. Some of the problems that unplanned urbanization tends to create will be avoided by the establishment of small centre of industrial production all over the country.' -- Industrial Policy, 1948, Office of the Development Commissioner, Online Document, Clause 8, (GOP).

The rural industries were however only incorporated as an appendage to the modern urban industrial sector in state budgetary plans. As stated in the First Industrial Policy-

> '...the aim of the State Policy will be to ensure that the decentralized sector acquires sufficient vitality to be self supporting and its development is integrated with that or large-scale industry. The State will, therefore, concentrate on measures designed to improve the competitive strength of the small-scale producer' --Excerpt from the First Industrial Policy Act, 1948, MoP, GOP.

The principles underlying the inclusion of the VSI sector in the five-year plans was based on the pre-independence Gandhian concept of a decentralized village economy[206] -- which was based on the principle of self reliance -- reflected in the Khadi and Swadeshi Movement in the Nationalist struggle (Sinha, 2005).[207] In order to bring the rural industries in contact with urban markets as well as to eliminate the role of usurious middlemen and intermediaries (a legacy of the colonial era) the village co-operative

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[206] The concept of decentralized village economy here is based on the principles of local governance established through the Panchayati Raj Acts of 1950s.

[207] The first and the second five year plans between 1951-1961 incorporated the VSI sector under the All-India Khadi and Village Industries Board set up under the 'Khadi and Village Industries Commission Act as part of Industrial Policy Resolution of 1956.

sector for the VSI sector was established through the different regulatory and promotional measures of the state. State policies towards the development of the RNFS in the 1950s-1980s period were centered on two specific aspects – promotional and regulatory. Promotional measures of the state were intended to increase self-sufficiency of rural industries as well as to improve the export drive of the country in which rural industries had a potential to contribute significantly. Regulatory policies of the state for village industries were intended to protect the rural workforce from urban industrial competition and usurious practices of middlemen in the villages.[208] Industrial policy of India in the decade following the independence of the country was focused on decentralization of production and integration of the village and small-scale industries (VSI from hereon) with urban industries. Integration of the VSI sector with urban industry was established through the 'common production program' (for small scale and heavy industries) in the first five-year plan (1951-56, MoP, GOI).[209]

a) Goals of State Policies for the Rural Nonagricultural Sector at All-India Level:

The central government in India realized the importance of finance and credit for eliminating usurious practices of informal money lending in the village economy:

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[208] The VSI sector was comprised largely of individual village artisans and small producers employing less than 10 workers or mostly family labor. Due to such circumstances, state policies were aimed to protect village artisans from usurious practices of village middlemen on the one hand and competition from urban large scale industries on the other (based on excerpts from the 1st to 7th five year plans, Planning Commission, Government of India).

[209] Through this program, the spill over effects of the modern industrial sector was assumed to be beneficial for the VSI sector (Excerpts from 1st five year plan, 1951-56, MoP, GOI).

> 'Village artisans scarcely have any financial resources of their own, nor have they any security to offer. They produce mainly for local demand and if they manufacture for a market outside the village, finance is generally found by [through] some middleman. Finance for the development of village industries has to be viewed as a problem inseparable from finance for agriculture. The formation of industrial co-operatives is essential if the Government and the co-operative movement are to be able to render substantial assistance to village artisans.' (1st five year plan, 1951-56, MoP, GOI)

Considering the emerging export potential of the rural industrial sector, a 'target approach' for financial outlay and credit provision was adopted through the first Integrated Rural Development Program (IRDP extensive credit program in e), which was jointly launched by the State and the Central Governments in 1980. This program although largely aimed at the agricultural sector was also important for the rural nonagricultural sector as it aimed at rural diversification of agricultural households and asset generation into the RNFS. The IRDP had a sub-target of 40 percent of its loans extended for 'industry, service and business' in rural areas (ISB as cited in Fisher et al, 1997:148).

> 'A beginning in this direction has already been made by inclusion of the 'Industry', 'Service and Business' component in the programme of IRDP which has been extended to cover all the blocks in the country. Of the 600 families to be covered under the programme in each block every year, 100 families would be through village and cottage industries and another 100 families through 'service' activities. It is expected that during the Plan period about 25 lakh families would get assistance in setting up rural industries and an equal number in the 'service' sector for self-employment '(6^{th} five year plan, 1980-85, MoP, GOI).

Introduced towards the end of the state led development period, the impacts of the IRDP were realized after the 1990s. The IRDP was coupled with other rural asset generation program that provided part loan-part subsidy for rural artisans, craft-man and small producers to acquire tools and asset individually (Fisher et al, 1997:148, Dev, 2002). Institutional credit particularly for the rural nonagricultural sector was made available

through the establishment of National Bank for Agricultural and Rural Development (NABARD) in 1982 (the material impact of the IRDP for the RNFS is discussed below).

Other than credit provision, the state also had policies for development of rural infrastructure -- roads, railways, ports and inland water transport, rural electrification aimed at facilitating trade and transport linkages for the VSI with urban areas and across states (5^{th} plan, 1974-79, MoP, GOI). An important aim of state policies was to provide technological and training support to increase productivity of the technologically backward VSI and SSI sector. Progressive expansion and modernization of the traditional industrial sector was promoted while remaining sensitive to possible technology induced unemployment this might generate in rural industries (Karve Committee Report, 2^{nd} plan, 1956-61, MoP. GOI).

The government regulated procurement and supply of raw materials for the VSI and SSI sector to free village artisans and small producers from the usurious practices of middlemen and commercial traders by setting up industrial cooperatives for regulation of the raw material market and for providing raw materials to the rural industries at reasonable prices. The state also took initiative in marketing support for products, aimed at protecting the small producers and village artisans from competition with large-scale industries as well as providing them state support to boost the initial rural industrialization projects. State aided co-operatives were specially categorized as marketing and trading co-operatives. Additionally export promotion councils were set up

for marketing of those products and marketing assistance to those industries, which were export oriented in nature.[210]

Through various policies, the state has sought to regulate the rural nonagricultural sector during this period to protect village artisans and small producers from large-scale industries, market threats and illegitimate practices of local traders, merchants and village middlemen. 'Incorporation' and licensing policies of VSIs and SSIs in state policies and with large scale urban industrial processes were intended to make many industries 'visible' for allocation of budget and provisions of institutional credit. Similarly, registration of units was also an important aspect for similar reasons (Fisher et al, 1997:89). Taxation policies of the state through customs and excise duties as well as income taxes of the central government and sales and internal transport taxes of sub-national state governments were intended to ensure the economic balances between different groups of producers (Fisher et al, 1997: 96). Labor laws on the other hand were imposed to safeguard wages, employment and occupational safety of workers (excerpts from various five-year plan documents; Fisher et al, 1997:109).

In general, integration of rural industries to urban modern industries was intended to promote faster growth and self-reliance – one that promotes the export drive by substituting imports -- of the small-scale rural industrial sector. Rural industries were also anticipated to support the urban modern industrial sector by providing labor and other

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[210] '...setting up of consortia for small scale industries and establish international subcontract exchanges, undertake studies on export potential, develop market intelligence, exchange trends delegations, participate in trade fairs, exhibitions and organize seminars and workshops' (7th plan, 1985-90).

inputs as well as develop the internal market for consumer goods (Tyabji, 1980: 1723; Sandesara, 1988: 645). As per the industrial policy of 1948, rural industries was also intended to help in mobilizing capital, which can be used to diversify into capital intensive economic activities. Additionally, technological support by the state for the rural industrial sector was aimed at increasing efficiency and productivity of these industries (Papola and Mishra, 1980: 1734). In terms of capitalist promotion of the rural industrial sector there were three objectives of the state as pointed out by Tyabi (1980): first, the rural industrial sector was a way to generate small centers of capital accumulation, which would augment industrial capitalism in the country at large and would provide the opportunity for the two main classes involved in this sector – merchant capitalist and small commodity producers in rural areas. Second, the small-scale rural industrial sector would generate employment at a faster rate than can made be possible through the slow growth of the large capitalist sector. It would also provide labor and goods essential for the growth of the urban capitalist sector. Third, the development of the rural small-scale industries was also intended for the geographical dispersal of industrial capitalism to areas, which were otherwise industrially backward (Tyabji, 1980: 1725-1726; Sandesara, 1988: 640).

b) Goals of State Policies for the Rural Nonagricultural Sector at Kerala Level and Coir Industry: State policies for industrial development in general and the rural nonagricultural sector in Kerala were more or less like that of the federal

government although industrial activity was not strong during this time. Kerala's sub-national state level five year plan policies started five years later than the national level as Kerala was organized as an administrative state only in 1956 when the second five year plan at the national level was underway. Although large-scale industrialization in general in Kerala was not as advanced as many other states in India, rural traditional industries were the backbone or base of the industrial structure in Kerala during this period (Oomen, 1976; Kumar, 1997). However, except for the coir industry and also to some extent the brick making industry, no other rural traditional industry was given adequate importance until the 1970s (Sreekala, 2010:42). This was also because of the fact that the coir industry was an important sub-sector of the VSI sector under the Khadi and Village Industries Board in the national five year plans because of its export potential (based on excerpts of the five year plans).

The state in Kerala did not pursue a strong industrial policy during this time, let alone rural industrialization, up until the sixth five-year plan, which was reflected in the low capital outlay for rural industries (Table 7.1) in the initial four five year plans (Kumar, 1997:90). This was also because the state was more oriented towards development of social service than investing in industrial development in the state during this time.[211] The total capital outlay of the state for the industrial sector in Kerala was less than 2 percent of the total budget in the first plan, which increased to 8 percent over the second, third and fourth plan up until the 1960s. There was a slight increase to 11 percent

[211] Because of higher levels of working class struggles for better conditions of life.

in the seventh five-year plan by the end of the 1990s (Kumar, 1997:90).[212] However, interestingly despite industrial activity being low during this time and despite rural industries being an important component for industrialization in Kerala in general, budget outlays were higher for the few medium and large-scale industries in the state compared to the VSI and SSI sector, although expenditures were higher for the later (Table 7.1). Also since the industrial sector was relatively less advanced in Kerala than the national level, central government investments in Kerala only constituted a meager 3.06 percent compared to the total investments in all states in India in 1970s dropping to 1.50 percent in 1990s (Economic Review ad cited in Sreekala, 2010:53).

Table 7.1 Plan-wise Outlay of Capital and Expenditure for VSI and SSI Sector, Kerala

Plans	Periods	Village and Small Scale		Medium and Large Scale	
		Budget	Expenditure	Budget	Expenditure
First	1951-56			50.43	
Second	1956-61	499.7	346.28	102.33	179.4
Third	1961-66	512.44	550.95	819	781.4
Annual	1966-69	1,007	1,011.25		1,483.70
Fourth	1969-74	849	836,29		3,545
Fifth	1974-78	891	2528	3285	4153
Annual	1978-80	4450	2615	11841	11848.6
Sixth	1980-85	7,040.50	7,392.80	14,135	19,684

Source: Plan Outlays and Expenditure, State Planning Board, Government of Kerala, 1951-90

[212] The rural industrialization program, which accelerated at the national level during the 3rd plan, allotted two industrial projects primarily targeting the coir industry in Alappuzha and Kozhikode (Calicut) districts out of the 45 industrial projects granted at the all-India level (Survey of Industries as cited in Kumar, 1997:91).

Other than budget outlay, Kerala also had lower provision of institutional credit than the rest of India and accessible only for a small section of the rural households through government schemes and programs.[213] Budgetary allocations were low for the coir industry, despite being a prominent village industry India. Rural credit provision for the coir industry was made available through the co-operative sector, which was initiated in the 1950s and re-organized in 1974. However, institutional credit was lower in proportion due to crisis of the general co-operative sector during the 1960s and later part of 1970s (Isaac, 1990: 77-78).

In terms of infrastructural development, the small-scale industrial sector in Kerala was given higher priority. Provision for rural electrification for supporting rural industrialization and larger infrastructural development like development of inland water and roads were initiated only after the 1990s with the growing export potential of the VSI and SSI sectors (Kumar: 1993-94). Infrastructural development -- in the form of installment of manual spinning wheels, handlooms as well as defibering units and small worksheds etc. -- in the coir industry was initiated through the co-operative sector (Isaac, 1990). Technological support in the rural industrial sector, particularly in the coir industry in Kerala was a lower priority of the state until the 1970s primarily because of

[213] Although interest rates for credit supply was lower for government institutions and co-operatives (2 -3 percent as against 10 percent in India as estimated in 1961, the proportion of borrowing from formal institution was lower compared to informal sources. Government aided credit for rural industries accounted to 1 percent from government and 11.6 percent in Kerala compared to 2.3 and 13.8 percent respectively for the national level. On the other hand, non-institutional credit 83.2 percent in Kerala against 83.5 percent at all-India level (All India Rural Debt and Investment Survey 1961-62 and Reserve Bank of India Bulletin, 1965, as cited in Kurup 1979: 999).

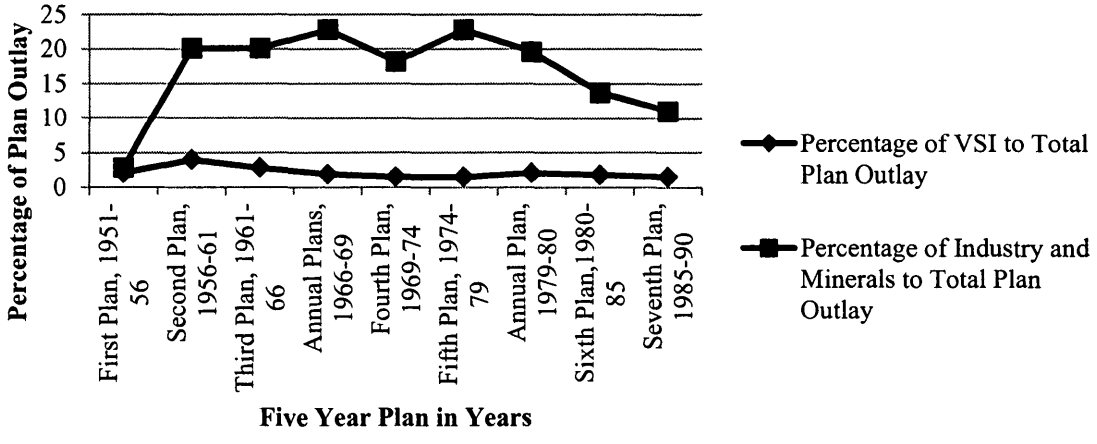
the opposition of the working class against mechanization due to threats of large-scale employment displacements (Kannan, 1999). The co-operatives on the other hand provided raw material assistance and marketing of commodities for the small and tiny producers in the VSI and SSI sector. In the coir industry, Coirfed -- the apex body of the state co-operative sector -- was established to regulate the procurement and supply of raw material. This measure was aimed at addressing the illegitimate practices of village middlemen in the guidelines of the national five-year plans. Coir depots were an inventory made during the 6th and 7th five year plans based on the 'government depot' system for marketing of rural industrial products of the national government during this time (excerpts from 6th and 7th plan).

7.4. Outcome of State Policies between 1950-1990:

Despite state's policies to augment economic development of the rural industrial sector, it remained largely an appendage and subsidiary of the urban industrial sector during this time. Various studies have pointed out how the rural industrial sector was a low priority sector in terms of the industrial policy and planning pursued by the state in the post independence period (Tyabji, 1980; Papola and Mishra, 1980; Sandesara, 1988). First, the total capital outlay of the state in various five-year plans, was significantly low for the village and small industries compared to the industrial sector of the country in total (as evident from Fig. 7.1). This indicates the emphasis of state policies on the urban compared to the rural industrial sector even when the industrial policy of 1948 laid out

common objectives for the industrial sector of the country in general to be implemented through the so called 'common production program'. Sandesara (1988) points out that even in terms of combined public-private investments, the rural industrial sector fared only 3-5 percent in the different plan period up until the 1990s (Sandesara, 1988:647).

Fig 7.1. Plan Outlay on Industries in the Five Year Plans in India, 1950-1990



Source: Five Year Plans 1950-1990, Ministry of Planning, GOI. VSI: Village and Small Scale Industries

Although the urban industrial sector is comprised of large-scale industries in requirement of heavy financial investment, the small-scale industrial sector (particularly the non-factory sector based on rural areas) is significant in terms of the industrial employment of the country's labor force (Table 7.2).[214] As seen in table 7.2, only 21.8 percent of the total labor force employed in the manufacturing sector is concentrated in the large-scale industries whereas 7.6 percent is in the small-scale factory sector (mostly urban and peri-

[214] Disaggregated employment data is not available separately for the period between 1950-1990.

urban) and 78.2 percent in the non-factory sector (mostly informal and home based and largely concentrated in rural areas).

Table 7.2. Employment in the Manufacturing Sector in India, 1993-94

Type of Forms	Employment in Lakhs.	Percentage Composition
Factory Sector	**62.5**	**21.80%**
Large Firms	40.6	14.20%
Small Scale Enterprises (SSE)	21.9	7.60%
NonFactory Sector	224.2	78.20%
SSE (registered)	118.1	41.20%
	38.1	13.30%
SSE (not registered/informal)	68	23.70%
Total	**286.7**	
Total SSEs	**246.1**	**85.8**

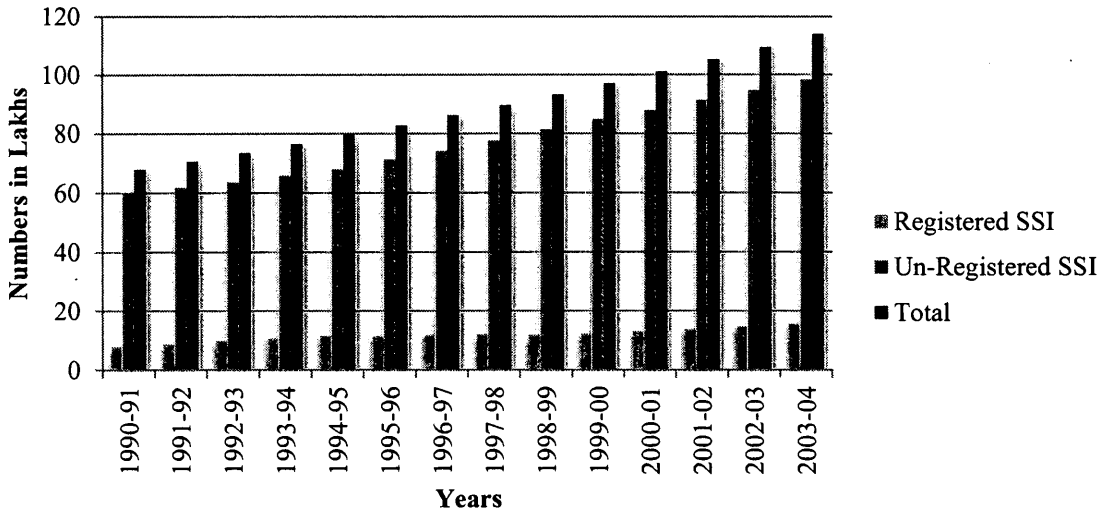
Source: SIDCO-UNIDO, 2012.

Second, according to the policies of the state, economic development of the rural manufacturing sector was to be realized through regulatory policies of formalizing rural industries through licensing and other legal policies for fair industrial practice in rural areas. In effect, however, only a small section of the manufacturing sector (mostly based in rural areas) was legally fomalized.[215] Unregistered manufacturing units are characterized by most house hold based small and tiny scale manufacturing units (largely in rural areas) whereas registered units are identified as large-scale industries (mostly in urban areas) (Sandesara, 1988:642, emphasis added in brackets). Although data for registered and un-registered small-scale industries is not available for the period between

[215] Registered manufacturing establishments (with 20 or more workers per unit) are governed by the Indian Factories Act, 1948, whereas unregistered manufacturing units are those that are outside the purview of the Factory Act and employ less than 10 workers (Sandesara, 1988).

1950-1990, Fig 7.2 indicates the growth of the formal and informal industries with the SSI between 1990-2001. The un-registered manufacturing sector grew at a faster rate compared to the formal sector. However, this also implies that the informal sector was largely outside the purview of state financial and other logistical support policies, which was intended largely for licensed formal industries. In other words, state policies for industry in general and rural industrial development in particular didn't reach a significant part of the rural manufacturing sector.

Fig 7.2 Number of Registered and Un-Registered SSI in India, 1990/2003-04



Source: Annual Report 2003-04, Ministry of Small Scale Industries, Govt. of India, indiastat.org

Third, the traditional/artisanal VSI sector was separated in administrative terms from the modern Small Scale Industries (SSI) sector since the 3rd five year plan, the latter often located in peri-urban areas serving as ancillary units to the large-scale industries (the coir industry in Kerala has all the components of VSI and SSI as well as the large

scale factory sector[216]). Although the capital investments in the VSI sector was relatively greater than the SSI sector because of the larger size of the former in terms of employment and number of industries, the SSI sector was able to generate investments from the private sector (other than the public sector) due to its contribution to increasing inter-industrial linkages between small and large scale industries and commercial orientation of industrial integration through the industrial anillarization[217] process. Differential credit policies of the state towards the SSI and VSI sector started to emerge in the 1970s onwards with the first wave of liberalization of the Indian economy and the realization of the greater export potential of the SSI sector. [218] It was estimated that the employment generation and the export potential of the modern SSI sector alone (64.60 lakh persons and Rs. 1050 crores (1 crore=10 million) in 1979-90) was higher than the VSI sector combined (although the handloom industry among the VSI was the only sector supporting 61 lakh person in India, export potential amounted to only Rs 261 crores between 1973-74 and 1979-90) (Kashyap, 1988; Sandesara, 1988). Although both the VSI and the SSI sector (after the second plan period) were part of the 'common production program'[219], state finances directed towards development of Industrial Estates

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[216] The bulk of the raw material processing and basic finished goods section is categorized as traditional village industries located in rural areas (with 10 to 16 lakh rural employment across the formal and informal sector). The rest of the industry and the finished goods processes are located in semi urban areas as the modern small scale industrial sector providing ancilliary support to the large scale advanced factory based finished goods sector.

[217] The process where large industries sub-contract a part of their unit to small firms (Kashyap, 1988).

[218] The SSI sector earned 17772.9 USD by 2003.

[219] The principal objective is to enable a number of small-scale units to have the advantage of common services and other facilities, such as, a good site, electricity, water, gas, steam, compressed air, railway sidings, watch and ward, etc. Being located near one another, some units may be better able to use the

– integrating large scale and ancillary industries -- benefitted urban industrial development (along with the SSI) rather than the rural traditional manufacturing sector (Kashyap, 1988), Fisher et al, 1997).

Fourth, in terms of infrastructural development, rural connectivity was a significant priority of the state during this time. Although data is not available for the period between 1950-1990, Fig 7.3 gives an estimate of rural road connectivity in the 1990s. There has been an annual average growth rate of 8.33 percent for total rural roads between 1990 and 1997 (NCAER, 1998). However, studies have found that outcome of such policies were only partially fulfilled (Lal and Rastogi, 2007). Lall and Rastogi (2007) points out: "...the earthen tracks and gravel roads [in rural areas] did not confirm to technical norms of compaction, drainage and geometrics. They were not all weather roads and in most cases could not be treated as functional means of connectivity' (2007:26). Also, rural roads by themselves could not improve rural connectivity for transportation and marketing of goods and services if the national highways and state and major roads were not developed simultaneously. However, 43.48 percent (271,152 villages) of total 623663 villages remained still unconnected (Planning Commission/Basic Road Statistics of India 1998-99 cited in NCAER Report, 1998). Among the states of India, Kerala, Goa, and Karnataka were the few states which had high performance in terms of rural road connectivity (less than 1 percent of un-connected rural villages) followed by Haryana and Punjab (less than 3 percent). Rate of rural

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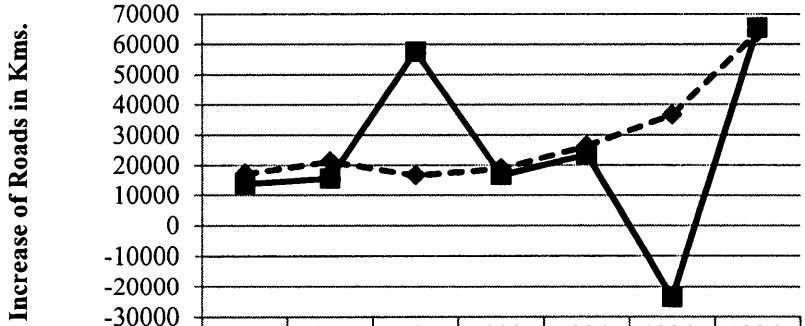
goods and services of others, so that they become interdependent and complementary (Provision 45, Second five-year plan, 1956-61, MoP, GOI)

electrification for commercial purposes in agriculture and industry was also slow between 1950-1990. 4,81,124 villages were electrified for commercial purpose (agricultural or industrial operations) out of 6,34, 321 villages between 1951-1991 (Census of India, 1991; Ministry of Planning 2005).

Fig.7.3 Net Increase in Road Length in Rural Areas in India, 1990-97



	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
Total (Kms.)	17226	21230	16697	18916	26365	36685	63,874
Surfaced (Kms.)	13789	15656	57585	16791	23523	-23639	65,424

Source: NCAER, 1998.

Fifth, the rural industrial sector could not access sufficient credit through various government schemes during this period. From 1994/95 to 1997/98, the central government plan outlay on the IRDP (Rs25 290 million) was a mere 1.19% of the total plan expenditure (MoF, 1998:137 as cited in Das, 2000: 634). The IRDP extended (by 1995 from its date of inception in 1978) Rs 22, 950 crores to 46.9 percent million borrowers out of its 40 percent allotment to rural industries as loans and subsidies. However, only 20-30 percent of the loans were recovered, indicating high default rates (Mahajan and Ramola, 1996 as cited in Fisher et al, 1997:148-49). Fisher et al, also

points out that although the refinancing scheme of NABARD for rural non-agricultural development increased from Rs. 1.4 crores in1985-86 to Rs. 328.9 crores in 1993-94, the non farm sector accounted for only 10 percent of total credit in 1993 (NABARD 1995:11 as cited in Fisher et al, 1997:152). Credit advances to rural industries only comprised only 0.7 percent of total credit outstanding in 1990 (Papola, 1992:242). According to the All India Debt and Investment Survey of RBI (1989), 60 percent of rural credit in the nonagricultural sector goes to livelihoods sustenance of the poorest rural poor, while only 8.9 percent were used for productive investments in non-agricultural activities (Fisher et al, 1997:155).

Assistance through IRDP was also geographically uneven across the states of India. Table 7.3 shows that assistance through IRDP was highest for the northern states of Haryana (88.68 households), Himachal Pradesh (88.41), Punjab (78.18) and Jammu and Kashmir (72.31) and lowest for less developed states in India like Bihar, Uttar Pradesh and Assam while being moderate to low for all other major states. Assistance was relatively higher for those households that had more than Rs. 500 per capital monthly expenditure. Although IRDP was a asset generation program for rural development in general, the impact of the IRDP was relatively more pronounced in the agricultural sector than the RNFS and for non-poor households in general as studies point out (Gaiha, 2000; Das, 2000).

Table 7.3 Distribution of Nonagricultural Self Employed Households by Receipt of IRDP Assistance Along with Average MPCE of Different Groups of Households by Major States in India in Rural Areas, 1999-2000

States	Number per 1000 Households	Average MPCE in Rs.	No. of Sample Households	% of Households to Total Sample Households
Andhra Pradesh	23	418	118	19.49
Assam	24	332	165	14.55
Bihar	30	403	307	9.77
Gujarat	54	640	107	50.47
Haryana	47	1095	53	88.68
Himachal Pradesh	183	585	207	88.41
Jammu and Kashmir	47	682	65	72.31
Karnataka	51	500	168	30.36
Kerala	30	590	98	30.61
Maharashtra	55	449	225	24.44
Madhya Pradesh	42	646	229	18.34
Orissa	39	473	134	29.10
Punjab	172	741	220	78.18
Rajasthan	35	602	114	30.70
Tamil Nadu	40	601	232	17.24
Uttar Pradesh	48	457	370	12.97
West Bengal	41	519	202	20.30

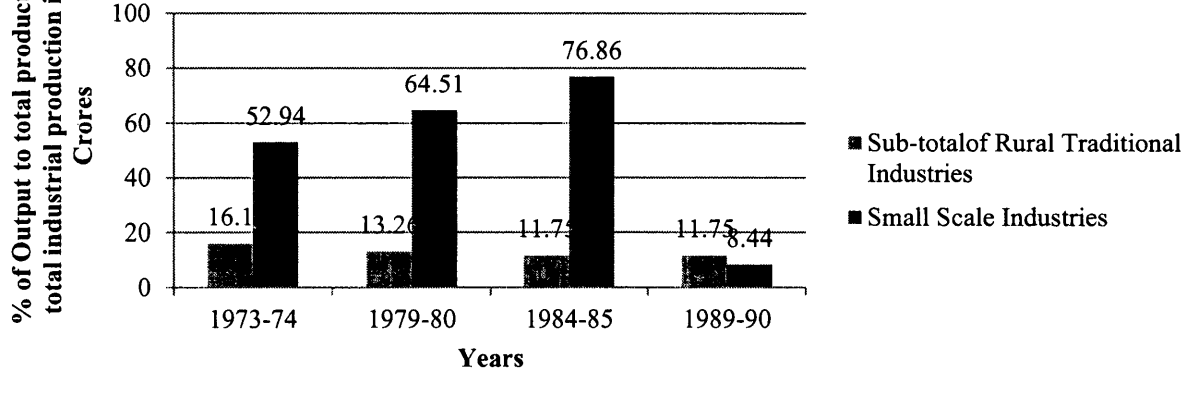
Source: NSSO 55th Round, 1999-2000.

Sixth, while credit supply has been limited for rural nonagricultural industries, the share of government assistance for technology, marketing or skill development was markedly different for different types of entrepreneurs, as pointed out by various studies (Sandesara, 1988; Fisher et al, 1997). Industrial Estates and export councils were often administered by traders and exporters as well as educated professionals based in urban

areas, who were able to benefit more from state financial and other forms of assistance compared to small producer's and trader's industrial co-operatives (Fisher et al, 1997:96, 101).

Finally, the selective emphasis of state policies on the modern small scale sector in relation to the rural traditional small scale manufacturing sector in terms of financial, infrastructural, credit and technological support could be estimated from the productivity and capital-output ratio of this sector in comparison to the village industrial sector (Fig 7.4). The value of output was higher for SSI units compared to VSI units (Rs 10,000 crores against Rs 19060 in 1979-80). The combined output of Village, Khadi, Sericulture, Handloom, Handicrafts and Coir industries (grouped under rural traditional industries) was lower than the SSI sector located in the peri-urban areas between 1973-90 after these two sectors were differentiated in the second five-year plan.

Fig 7.4 Performance in terms of Growth and Development of Rural Traditional Industries and Small Scale Industries in India, 1973-90



Source: Compiled from Sandesara, 1988.

Individually, among the village industries, the coir industry was the only industry that recorded the slowest and declining growth rate – 2.84 percent in 1973 to 2.31 percent in 1990 (Seventh Plan, 1985-90), while the handloom industry recorded the highest output (24.53) in 1990. Uneven performance of various rural industries can be attributed to uneven allocation of funds for various sub-sectors within rural traditional industries. For instance, Khadi and Village Industries (23 percent); handloom industries (18 percent) and sericulture (11 percent) had recorded higher share of total budget allocations than coir industry (0.1 percent) in the 7th five year plan which was representative of most of the plans. This was because handloom textile industries had higher export earnings (Rs. 485 crores) compared to coir (Rs. 32 crores) in 1989-90.

State policies towards the rural industrial sector in the post independence era of India, were intended first, to usher in self-sufficient development of this sector and its classes; second, to remove the structural bottlenecks of the colonial era by imbibing a sense of fair and legitimate production practices; and thereby third, to bring in economic development vis-à-vis industrial capitalism in the urban areas. The industrial policy of 1948 and consecutively the first and second fiver year plan emphasized the integration of large scale industrial sector to the small scale rural traditional industries, whereby the latter would benefit from the spillover effects of the former. However, as we have seen, in practice the rural industrial sector was largely neglected with state policies largely emphasizing the urban industrial sector. This was also because the postcolonial period between 1950-1990 was largely oriented towards developing the largescale industrial

sector of the country. The Mahalonobis[220] strategy for planned industrialization, the Bombay Plan[221] and the Five Year Development Plans have been significant steps in this regard (Bhambri 1989 as cited in Das, 1999; Das, 1999; Chibber, 2003). All such planned policies of urban industrialization were largely influenced by the state's bias towards the urban capitalist class on which it depended for its material reproduction (Kohli, 1988; Das, 2007). The state's class biasness in the interests of the dominant capitalist class in urban areas made the rural industrial sector an appendage to large scale industries and a means to generate surplus – in terms of capital and labor – for the capitalist accumulation project of the urban capitalist class. A significant step in this regard was the incorporation policy of small and large scale industries through formation of ancillary industries in semi urban semi rural areas aided such processes and the division of the modern from the traditional sector of village industries along with the. Although, the idea of ancillarization was meant for increasing total industrial output for both small and large scale industries as well benefit the former through technology transfer from the latter, the opposite was more in effect (Papola and Mishra, 1980). Studies have pointed out that rural as well as small scale industries through their incorporation to large scale industry increased the degree of supply linkages for the latter, it also created as what Kashyap (1988) 'called a relationship of dependency': 'The entrepreneurs in small firms merely receive wages

[220] 'This is a strategy of national development, named after the planner Mahalanobis, who stressed the important role of the state in economic development' (Das, 1999: 2106).

[221] The Bombay Plan is the name commonly a set of proposals for the post-independence economic development of India. The plan, published in 1944/1945 by eight leading Indian industrialists, proposed state intervention in the economic development of the country after independence from colonial rule in 1947.

rather than a share in profits. The benefits of government fiscal and financial subsidy to the small-scale sub-sector have, thus ultimately flowed to the large-scale sector" (Kashyap, 1988: 677-78). Rural industries also have a higher capital output ratio, which is comparable to the urban industrial sector (Annual Survey of Industries, various years, www.indiastat.com). Urban industrial processes can therefore benefit from such outcomes through an integrated industrial policy.

7.5. State Policies in the Neoliberal Period (1990 to Present):

Liberalization of the Indian economy since the 1990s marked the beginning of a new era, with the entry of private capital and market led development in al sectors of India's economy including the RNFS. As Dumenil and Levy points out, the neoliberal project is "the new determination to drain the resources of the periphery toward the center" (Dumenil and Levy, 2005: 10). As a spatial project, neoliberalism has been a means through which the crisis of capitalism that emerged in advanced capitalist countries was spatially transferred to the less developed peripheries (Harvey, 2005). Neoliberalism as an imperial project in India as studies have discussed is facilitated by the Indian post colonial capitalist state and its specific policies acting as a medium to serve the interests of the global capitalist class (Banerjee-Guha, 2006; Patnaik, 2010; Das, 2012). As Patnaik points out, 'state under neoliberalism ... actively promotes an increase in the share of surplus value in the hands of domestic and foreign corporates ...' (2010 as cited in Das, 2012). The Indian state mediates the process of surplus extraction

by imperial capital from different sectors of the country's economy by exploiting poor workers and peasants in both rural and urban spaces (Das, 2012). As Das explains, as part of neoliberal structural adjustments 'new facilitative conditions has to be [been] created: deregulation of private business; privatization of government-owned businesses; trade liberalization, allowing entry of foreign capital to own business in India; tax cuts and other incentives for business, and withdrawal or reduction of meagre government benefits for the poor' (Das, 2012). While neoliberal policies in urban areas in India unfolded through the new production of space (Banerjee-Guha, 2006), rural activities (both in agriculture and non agriculture sectors in rural spaces) have become strategies for capitalist accumulation (particularly in urban areas) in newer ways (Das, 2012, emphasis added).

The rural nonagricultural sector has come to occupy a significant position during the current neoliberal period, particularly due to its increasing potential in rural employment generation and export-based production. With the slow decline of the agricultural sector in both production and employment prospects due to the impact of uneven neoliberal policies, increasing incidences of poverty and rising unemployment has created concerns for rural development in general. On the other hand, the shift towards export promotion as part of neoliberal structural adjustment has led to an overall export drive in the country resulting in promotion of export oriented production in both the traditional (VSI) and modern (SSI) components of nonagricultural manufacturing processes in rural areas. There has been a renewed emphasis on the integration of the

rural manufacturing sector with urban – both foreign and domestic based -- export based production processes through labor, product, trade and supply linkages. Promotion of rural entrepreneurship through self-help programs and industrial cluster formation [222] for integrating rural manufacturing with urban industrial processes by the state is aimed to facilitate private capital investments in erstwhile state-led rural industries, allow free play of market principles and aimed to increase productivity and technological development of the VSI and SSI sectors along with other sub-sectors through generation of market competition (FICCI, 2012; various excerpts from 8th to 11th plans).

Thus post 1990s state policies towards the RNFS emphasized the importance of privatization and promoted increased entrepreneurial capacity of the RNFS, whereas rollback of public expenditures in all spheres of the economy including the RNFS:

> "In the new orientation to planning during the Eighth Plan, people's initiative and participation would be a key element in the process of development. Greater emphasis will be laid on private initiative in industrial development. The public sector will become very selective in the coverage of activities and in making investment. *Small enterprises in the village and small industries sector are, more or less, based on private initiative and entrepreneurship*"(3.2, 8th Plan, 1992-97, MoP, GOI; italics added)

There has been also a greater emphasis on people-oriented local decentralized governance in the adjudication of these programs to make such development policies more inclusive, transparent and democratic in nature. State policies during the neoliberal

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[222] Aggregation of various types of small and micro scaled rural industrial process in varied distinct groups or clusters in specific zones often in peri-urban areas for incorporation with urban processes through vertical integration processes and supply linkages. UNIDO defines industrial cluster "as a local agglomeration of enterprises (mainly SMEs, but often also including some large enterprises), which are producing and selling a range of related and complementary products and services... It must be, however, highlighted that a cluster is not merely a hardware, consisting of a group of industries located in a particular area .Its success and dynamism are highly dependent on the software i.e. the linkages and relationships that get established or are consciously established over a period of time' (UNIDO report, 2012).

period sought to promote 'market led' capitalist development to cater to the needs of private capital accumulation. Empowerment of women and marginal groups were emphasized in tune with the inclusionary nature of state policies as well as due to the fact that female workers have come to comprise a significant part of the rural workforce in the cottage and tiny as well small and medium scale industries (SMEs). State policies and intervention, however, as in the case with as with other sectors of the national economy in general have become selective in their approach to the RNFS and is now formulated on the budgetary guidelines of global organizations like the World Bank and IMF and policy recommendations by national business organization like Federation of Indian Chambers of Commerce and Industry (FICCI).[223]

a) Goals of State Policies for the Rural Nonagricultural Sector at All-India Level:

State policies for the RNFS have been integrated with rural poverty alleviation programs:

> 'It is possible to dovetail programs of khadi, village industries, hand-looms, sericulture and handicrafts to integrated local area development programs for selected villages for poverty alleviation through increase in employment' (6.4.2, 8th plan, 1992-97, MoP, GOI).

[223] A s per the World Bank policy prescriptions the growth of a 'non farm' sector is crucial on the face of a stagnant agricultural sector in developing countries and development of this sector would be substantial for reaching the *Millenium Development Goals* of the United Nations for reducing poverty levels by 2015 (World Bank, 2011). According to the World Bank model 'government over-regulation of domestic trade, agro-processing, enterprise size, and land and credit markets discourage private investments in rural areas' and therefore the state's role should be minimum limiting itself only towards adjudication of legislations for promotional measures like technological innovations and rural diversification and market development among other things (Agriculture in South Asia, World Bank, 2011).

Provision and access to financial support and credit as before continues to be considered as an essential step for building rural entrepreneurship with an increase of 283.4 percent of increase of capital outlay between the 9th and the 10th plan for the rural industrial sector through public-private partnerships (10th plan, 2002-07, MoP, GOI):

> 'Advances from commercial banks to the small scale sector as on 23rd March, 1990, was Rs.15,543 crores as against Rs.6,766 crores at the end of June, 1985. This increased to Rs.17,151 crores as on 22nd March, 1991. In percentage terms, advances to the small-scale sector were 15.7 per cent of the total bank advances in March, 1991' (8th plan, 1992-97, MoP, GOI).

The 8th plan also mentioned the pitfalls of deregulation with rising interests on credit:

> 'a development which is likely to increase the cost of credit to small scale industries is the deregulation of interest rates to be charged by banks on advances above Rs.2 lakhs.' (8th plan, 1992-97, MoP, GOI).

The IRDP continued to remain a major rural diversification program during the period with added emphasis on the rural nonagricultural sector since the 8th plan onwards. However the investment from IRDP in the secondary and tertiary sector in total in the 8th plan was only 15 and 30 percent of the total with major focus in the primary agricultural sector. An important component of credit provision since the 9th five-year plan to rural nonagricultural activities was the provision of micro-credit, forwarded to self-help enterprises and cluster programs and through rural Non Government Organizations (NGOs). The interest rate through a micro-finance[224] institution is 10 percent flat interest on a sum of Rs. 1000 working out to 19 percent per annum as of 2007 (Planning Commission, 2007:2). This has been considered a fair rate compared to informal lending

[224] In the model of the Grameen Bank (Micro Finance Institution) of Bangladesh (1976).

institutes.[225] The IRDP project was renamed as Swaranjyoti Gram Swarozgar (Self Help) Yozana (SGSY) in the 9th plan. The SGSY program is part credit driven and part subsidy driven program (against IRDP which was a subsidy driven program) where the ratio between the two is 3:1 and the ratio of central to state government assistance was 75:25. [226] The self-help program is centered around aspects of social mobilization, group savings and internal funding among members, micro-finance (public private initiative) and micro-enterprise development. A significant aspect of financial allocation in state policies and programs is the increasing proportion of private capital and foreign capital (in the form of micro-finance and largely in sectors like Food Processing, Handloom and Coir) and the declining trend of state subsidies in the credit component.

Rural infrastructural development was also emphasized in the National Program for Rural Industrialization in the 10th plan through the development of industrial clusters. There has been an overall emphasis for road building to meet commercial linkages between rural and urban areas in the 10th plan. The FICCI stressed the need for private investments in infrastructural development in rural areas: '...greater emphasis on developing the corporate bond market, leveraging insurance and pension funds for investments in infrastructure sector' (FICCI, 2012: 10). Allocation through the IRDP

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[225] While banks, microfinance institutions and credit cooperative societies comprise the institutional channels, landlords, local shopkeepers, traders/suppliers and professional moneylenders constitute the non-institutional channels. The interest charged by the non-institutional channels, on informal loans, ranges from 24 per cent to 60 per cent. In some regions, it is reported to be as high as 120 per cent per annum. In comparison, the interest charged by the institutional channels varies between 15 to 28 per cent (Planning Commission, 2007:1)

[226] The allocation of funds to IRDP/ SGSY was Rs. 5058 crores in the 8th plan rising to Rs. 6169.13 crores in the 9th plan (10th plan).

program increased from 10 to 20 percent in all states from the 8th to 9th plan for development of critical infrastructural support and market linkages of rural agricultural and nonagricultural sector (2.1.17, 9th plan).

With market competition as part of liberalization policies as well as the increased export drive of the country since 1990s has forced both the central and the sub-national state governments to intervene in technological modernization particularly for the rural manufacturing sector. State policies stressed the importance of market orientation in bringing technological changes in rural industries:

> 'In a situation of an ever changing pattern of demand, emergence of new products and technologies in a dynamic and growing economy, an attempt would be made to integrate the IRDP activities, particularly those in the Industry Services and Business (ISB) sector with the market.'. (2.1.91.9th Plan,1997-2002, MoP, GOI).

As of 2006, there are 12,341,661 small-scale units in India with a state capital investment of Rs. 18,1.423 crores for plant and machinery development (Rajya Sabha, 2006, www.indiastat.com).

About Rs. 11, 969, 000 has been earmarked for training rural artisans and craftsman in rural industries in 2012-13 with an increase from Rs. 10,792,000 in 2009-10 (Industrial Training Institute, 2012).[227]

Unlike the previous period, the state did not play an active part in the provision and licensing of raw materials to rural artisans and craftsmen at fair prices since the 1990s. Rather than state intervention in raw material provision directly, village industrial

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[227] The two most important rural artisans training programs TRYSEM and DCWRA programs initiated in the 7th plan and conituned up until the 10th plan were later merged into the self employment programs of IRDP/SGSY in the 10th plan due to lack of effective linkages of training to other components of rural industrialization.

clusters were encouraged to engage in collective purchase of raw material on their own and reduce costs of production (10^{th} plan, 305). There has been encouragement for private capital initiative in raw material provisioning to rural industries through public-private capital initiated raw material disbursement 'depots' (11^{th} plan, 2002-07,108, MoP, GOI).

A significant emphasis of state policies (10^{th} and 11^{th} plan) for rural industries was to undertake initiatives to strengthen international marketing linkages and attract private capital investments in the post liberalization export orientation of these industries:

> 'In post-WTO agenda, domestic markets have been opened up for imports, creating severe competition for the local industries. At the same time, this has created opportunities for the small industries to export products to the developed countries. To gain from this opportunity, however, effort must be made in pushing for greater market access in the developed countries' (5.7. ,11^{th} plan, 2002-07- 105, MoP, GOI)

A key emphasis of state policies in marketing has been to expand the domestic market, which was constrained in the previous era:

> 'KVIC [Khadi and Village Industries Corporation] is providing the necessary marketing inputs to the khadi and village industries sector for both domestic as well as export marketing. Its main focus, however, is on domestic marketing.' (5.4.13 9^{th} plan: 597)

Another key focus area has been the integration of self-help programs with industrial 'activity' clusters to promote marketing strategies for the products of rural industries. The involvement of the NGOs and private marketing agencies is also an essential step in this regard. Inter-state, intra-regional, inter-district network of marketing confederations of self-employed members is another important marketing initiative (11th plan, 2002-07, MoP, GOI).

Many of the regulatory state policies for the rural nonagricultural of the previous period of development were either abandoned or considerably relaxed to accommodate flexible production as well as to promote market oriented capitalist economic development:

> 'The cumbersome procedures and a large number of returns that entrepreneurs have to furnish, distract them from production and marketing activities. It is, therefore, necessary to undertake a comprehensive review of laws and procedures and to simplify them so that entrepreneurs are able to concentrate on efficient running of their units' (6.4.10. Village and Small Industries and Food Processing Industries, 8th plan, 1992-97, MoP, GOI).

b) Goals of State Policies for the Rural Nonagricultural Sector at Kerala Level and Coir Industry: State policies towards the RNFS in Kerala were based on similar principles as that of the national state and were contextualized within specific changes in the state's economy. As in the case between 1950-190, small-scale rural industries were still important in the overall industrialization process in the state. Kerala's economy, particularly its large-scale industrial sector, did not progress considerably since the 1950s.[228] The sustainability of the social-welfare nature of state actions (popularly known as the Kerala Model[229]) in the neoliberal period was reconsidered on the grounds of constraints in state spending and its impact on social provisioning.[230] More

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[228] Kerala occupied 10th position among the 15 major states, in 1993-94 with the manufacturing sector contributing 4.25 percent to the NSDP between 1981-82 and 1990-91, Subrahmanian, 2003 for 8th plan review.

[229] Kerala states' achievement in significant improvements in material conditions of living is reflected in indicators of social development that are comparable to that of many developed countries. This is even though the state's per capita income is low in comparison to them (Parayil, 2000).

[230] 'Putting it differently, an important condition...for the adoption of a Kerala-type trajectory in any region, is that either the region itself should have an internally-balanced production-structure where it is self-sufficient in basic necessities, or that it is part of a larger region which has this characteristic (together with appropriate arrangements for financial flows). (The third possibility of the region having colonies,

importantly, stagnating conditions in rural industries like handloom and coir were a national concern due to their potential in generating export revenue which prompted state policies to be more pro-active and promotional of rural industrial sector.

Development of the rural nonagricultural sector was tied with rural development policies in Kerala as in rest of India. Also, an approach of decentralized and participatory planning through local government administration was adopted since 1995, based on needs based identification of the rural population[231] (10^{th} plan):

> 'Around 90% of the Plan funds is given in a practically untied form to the local governments to prepare their own schemes and implement them within certain broad policy framework, which stipulates that at least 40% of the funds (10% in urban areas) should be invested in productive sectors...' (10^{th} plan, 2002-07, Government of Kerala).

Another important aspect of state policies in Kerala was the pursuance of a self-help micro enterprise development method for rural industries integrated through poverty alleviation programs for rural development with considerable success as reported in the 12 national five year plan (12^{th} five year plan, 2007-12). Among the significant promotional measures of the state for capitalist development -- other than credit and financial provision through self-help programs -- were technological modernization and cluster development in rural nonagricultural sector.

The coir industry has been an important focus of national and state level promotional policies since the 1990s. This concern is informed partly by the growing

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which make it 'self-sufficient' in a manner of speaking need not be pursued here). The 'structural reforms' upon which the Indian economy is currently embarked not only apotheosise 'supply side' incentives for capitalists, not only entail a rise in the degree of exploitation of the working people through a cut inter alia in their 'social wage' but above all destroy the internal balance of the production-structure, replicating an Africa-type scenario and subverting any prospects of a Kerala-style trajectory'-Patnaik, 1995:49)

[231] Rs. 8000 crore is earmarked for local governments for the Tenth Plan with an Annual Plan outlay of Rs.1250 crores is exactly 1/3rd of the Plan size for preparing their own plans from below.

export potential of the coir industry over the years and its ability to generate rural employment. As the 12th national five-year plan states:

> 'It has an annual turnover of Rs 1300 crore with a steady growth rate of 10%. India accounts for 90% of the world's coir production and our coir products are exported to approximately 90 countries across the world. The industry provides livelihood and/or additional income to more than 31.25 lakh people, mostly the disadvantaged sections of the population—SC, ST, and minorities. Women constitute 80% of its workforce. In 2006–07, coir exports amounted to Rs 605.17 crore, well above the Plan target.' -11th Plan, 2002-07, Government of Kerala)

However, part of the concern was also largely due to the dispersed and labor intensive character of the industry, slow levels of productivity, low technological development, seasonal nature of employment, and proliferation of micro, small and medium enterprises in both the formal and informal sector in recent years.

Credit provision for rural nonagricultural sector has been provided through part loan-part subsidy asset generation schemes of the SGSY program of the national government (Rs. 300 lakh outlay, 2011-12); Rural Infrastructural Development Fund (RIDF) of National Bank for Agricultural and Rural Development and NABARD assisted schemes (Rs. 1180 lakh, 2011-12); and the state component of the self help program-*Kudumbashree* Program (Rs 3000 lakh, 2008-09). These programs provided seed loans to rural enterprises, micro-credit loans and loans through cluster subsidy schemes (Rs. 250 lakh outlay in the proposed 12 plan for 2013-14) for the small-scale industries in rural areas at a flat rate of 10-12 percent interest rate to self-help groups. Special programs of the Kerala like the Intensive Industrialization Support Scheme (Rs. 200 lakh outlay in 2011-12) and the Kerala State Small Industries Co-operation (Rs. 20 Lakh outlay in 2011-12) has been instrumental state aided public-private partnerships for assisting small

and tiny enterprises also issue loans and subsides (Annual Plan, Industry and Minerals, 2011-12: 125-26). The *Kudumbashree* Program initiated in 1998 is a state poverty alleviation program, which integrated micro-credit assistance to rural livelihoods including the rural nonagricultural industries through self help entrepreneurial activities and linkages to rural and urban industrial clusters. As of the 12th five-year plan (2007-2012), the program had 37 lakh members in rural Kerala covering more than 50 percent of rural households (12th plan, 2012:98).[232] Achievements for the rural industrial sector (traditional industries) through the *Kudumbashree* program surpassed the targets for the year 2008-09 (972 rural manufacturing enterprises were supported out of 700 targeted) (12 Five Year Plan, 2012-17: 98).

Other than financial assistance and credit provision, technological modernization for the village and small industries constituted 39 percent of total allotted funds for the small scale sector and 24 percent for the coir industry (Calculated from statistics from Annual Plan, 2011-12: 123). Technological modernization is largely under way through state as well as public-private partnership in the coir industry under the common program of the Kerala state titled 'Regulated Mechanization of Coir Industry' in 2010-11. This program is 'regulated', keeping in mind the threat of mechanization-induced

[232] The grassroot of *Kudumbasree* is Neighbourhood Groups (NHG) that send representatives to the ward level Area Development Society (ADS), which sends its representatives to the Community Development Society (CDS). These are the unique three-tier structure of Kudumbashree. Today, there are 1.94 lakhs NHGs, over 17,000 ADSs and 1061 CDSs in this structure. The CDS facilitates bank linkages for farming, micro housing and micro insurance. They also serve as the delivery point for skill upgradation and market development support to micro enterprises. *Kudumbshree* extends its support services to different Govt. department and agencies in various development activities. It also have deep rooted organizational base even in remote areas in the state. An amount of Rs.2502.24 lakh was expended (97.1%) during 2007-08 and Rs.3000 lakh during 2008-09 (100%).

unemployment and also for the protection of the co-operative sector, a dominant state aided stakeholder in this industry

The state also provided significant support for marketing assistance: 5 percent of the total funds consisted of marketing assistance for the small scale sector while 11-15 percent of the total funds constituted of marketing incentives, co-operative marketing, cluster programs and through public private initiatives like the Kerala Coir Marketing Consortium (Calculated from Statistics from the Annual Plan, 2011-12). Marketing strategies for the rural industries were not only intended to capture global markets but also to expand the domestic market. About 5.7 percent of the annual plan of 2011-12 has been allocated for market assistance, publicity and trade assistance and market oriented product diversification (geo-textiles, coir pith[233]) in the coir industry. In addition the central government has also emphasized the development of coir clusters for marketing and financial assistance to the industry particularly its medium and large sector in its 11th five year plan.

The cluster development approach, which has been promoted largely at the national scale in the guidelines of the United Nations Industrial Development Organization (UNIDO) is a significant step towards integrating rural and urban industrial processes in Kerala. The cluster approach[234] comprises of programs like rural

[233] These two products are recently promoted by the state as environment friendly agricultural and industrial products for the global market.

[234] 'Industrial clusters are increasingly recognized as an effective means of industrial development and promotion of small and medium-sized enterprises. For MSME participants, clusters play an important role in their inclusiveness, technology absorption, efficiency improvement and availability of common resources. The Ministry of Micro, Small and Medium Enterprises (MSMEs) adopted the cluster approach

entrepreneurial support schemes, infrastructure development, capacity building, marketing, credit and loan facilities, sourcing of raw material, training and R&D (Annual Plan, 2012-13, Economic Review, 2012).

7.6. Outcome of State Policies for the RNFS and the Coir Industry in Kerala:

State policies at the national level as well as the sub-national level have been able to instigate to some extent -- market based principles in rural industrial development. In terms of rural entrepreneurship there has been a 5.53 percent increase in rural enterprises between 1998 and 2005 with rural nonagricultural enterprises accounting for 76.8 percent of the total rural enterprises, the rest being in the agricultural sector (NIRD, 2013). Rural institutional credit for rural nonagricultural sector grew from 43.9 percent to 45.1 percent of total credit disbursed, while rural micro and small credit grew between 9.3 to 13.8 percent between 2008 and 2009 (NIRD, 2013). Percentage growth of micro-credit to self help groups under SGSY program grew by 5.49 percent between 2005-10 with close to 20 percent increase in number of self help entrepreneurial groups across states in India (Lok Sabha, 2008). 57.3 percent of women were assisted through the self-help group program between 1999-2000 to 2009-10 (NIRD, 2013). Technological assistance and market expansion for rural industries was done through integration of rural production process through industrial cluster projects. At present there are 400 industrial clusters across the states of Indian for small and medium enterprises, whereas rural artisanal and

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as a key strategy for enhancing the productivity and competitiveness as well as capacity building of small enterprises'- (3.35 Economic Review, Kerala, 2012).

traditional industrial clusters number more than 2000 (SIDCO and UNIDO, 2013). In terms of infrastructural development during this period, rural electrification was provided to 5,87,258 villages in 2011 out of 5,93, 731 inhabited villages in India (Kamalapur and Udaykumar, 2012). This was a positive achievement on the part of the state. In terms of road connectivity, about 70 percent of growth was achieved in terms of length of rural roads construction between 1950-51 and 2000-01 (Lall and Rastogi, 2007).

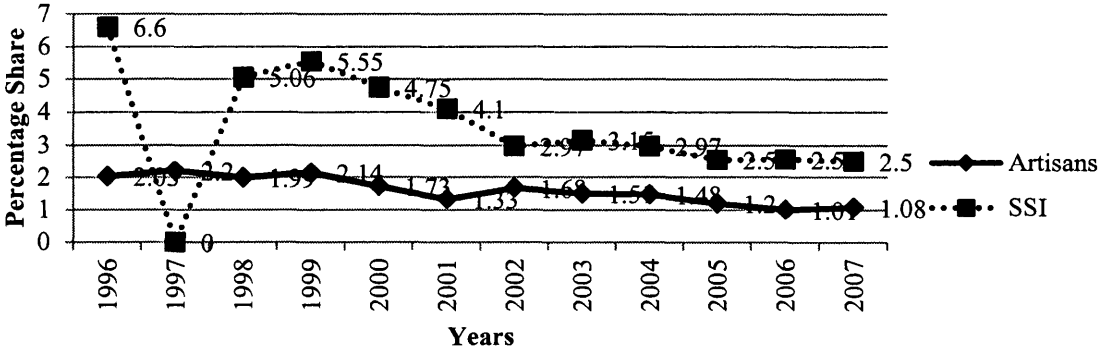
There has been 7.93 percent increase of small scale and medium scaled rural enterprises between 1998 and 2005 with 62 percent of the total rural enterprises in the RNF[235] in Kerala. Kerala recorded more than 50 percent of small scale and rural artisanal industrial clusters in India, with selected 10 small scale and 35 artisanal export oriented clusters in rural areas.[236] 48.6 percent of Kerala's self help assistance in 1998-99 was disbursed to women workers in rural areas, which was the highest among all states in India.

However, the outcome of these policies has been uneven across the different sectors of the rural industrial economy. First, as in the previous era, the share of village industry in total plan outlays has been quite meager and showing a declining trend since the 8th plan (1.46 percent to total plan outlay in 1992-97 to 1.12 percent in 2002-07) (8th to 10th five year plan). This also indicates the withdrawal of the state from the budgetary allocations in general in the current neoliberal period allowing scope of private capitalist

[235] Highest in the country. (NIRD data, 2005).
[236] Most export oriented rural clusters are vertically integrated with larger industrial processes (SIDCO, 2009 and UNID), 2013).

investments in rural areas, which is still quite insignificant. Second, although the state took an important initiative in integrating public-private partnerships to provide rural credit for self-help entrepreneurship, there has been a decline in total credit available to rural industries in recent years. Also, the ratio of credit provision to the small-scale (SSI) sector has been significantly higher than the village industrial sector (artisans) (Fig 7.5).[237]

Fig 7.5 Percentage Share in Total Credit to Rural Industries in India, 1996-2007



Source: Reserve Bank of India, *Basic Statistical Returns*, various years.

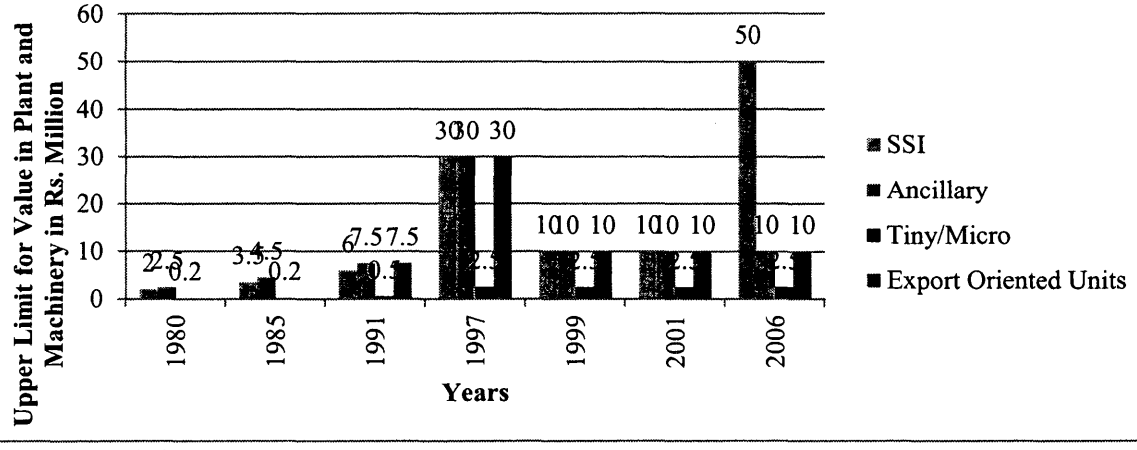
A large number of rural industries being informal/unregistered and household based in nature (as mentioned above) do not qualify for state financial program. State policies have been selectively biased in regard to the capital-intensification of the SSI sector, which is largely dominated by relatively affluent classes compared to the village industrial sector which remains largely labor intensive in nature. Inaccessibility to

[237] The SSI sector earned 33.4 percent credit from private sector and foreign banks in 2007. The SSI sector earned 41 percent of public-private credit in 2007.

institutional credit has been a major obstacle in the development – particularly technological development -- of the village industrial sector.

Third, state policies for infrastructural and technological support is often accessible to rural entrepreneurs based on administrative classification of sub-sectors within the rural industrial sector. As seen in Fig 7.6 state spending in terms of budgetary allocations are highest for the small scale as well as the ancillary industries. These industries support large-scale industry (often urban based) with supply inputs or through subsidiary service.

Fig 7.6 State Spending in Plant and Machinery in the Rural Industrial Sector in India, 1980-2006



Source: Compiled from Das (2006: 112).

Also, since 1990, technological support for export-oriented units as an additional administrative category has become an important priority sector of the state. These industries/units are often based in peri-urban areas and have come to play an important role in export-based production in the current neoliberal period through their integration to global commodity chains. Comparatively, state support to the tiny or micro enterprises

or household based industries, which are the backbone of rural as well as urban industrial processes (in recent times) are low priority sectors in terms of financial support for technological change. The access to state support based on such administrative classification of rural industries not only makes state policies bureaucratic in nature, but also reveals the bias of the state policies in the interest of the large-scale industrial sector. While certain sections of the rural industrial sector have been privileged in terms of accessibility to state support, state policies at large continue to neglect the small and tiny enterprises, particularly in industrially less developed regions in India (Das, 2009).

Fourth, studies have pointed out that rural micro-finance projects, asset generation and infrastructural support schemes and human capital formation programs for the RNFS of the state, brought under the umbrella of the Swarnajayanti Gram Swarozgar Yozana (SGSY), has not been able reach the targeted or the poorest of the poor population in rural areas. The SGSY, which intended to generate self-employment entrepreneurial development in the rural nonagricultural sector, could generate 1.3 million self-help groups in rural areas assisting 3.5 million self-help entrepreneurs between 1993 and 2003. However, the criterion of selecting participants (based on below poverty level households) has not been efficient in targeting the poorest of the poor with a significant share of funds being leaked to non-poor rural households (Shylendra and Bhirdikar, 2005: 210-11). Also, the share of the SGSY allocation declined sharply from 13.1 percent in 1999-2000 to 4.5 percent in 2006-07 (Chakrabarty, 2007: 549). It was also pointed out that the subsidy element in SGSY has been a major source of corruption and a

disincentive on the part of commercial banks to lend on account of low recoveries. Subsidy attracts ineligible people, who have no little expertise or interest in setting up an entrepreneurial activity (Saxena, 2003:25). Only 6 percent of the available funds were utilized for training and capacity building at the all India level in the decade following its inception (1999-2009) and only 16 percent was utilized for infrastructural and technological development. The overall utilization of funds declined over the decade (Department of Rural Development Report, 2009: 8-9). A large fall-out of the state self-help programs and micro-credit policies is their inability to reach the hands of the rightful beneficiaries, because private commercial banks were reluctant to fund tiny enterprise at low or no collateral deposit:

> 'Lending to micro [tiny] enterprise...has fallen from 51.2% in 2002–03 to 45.1% at the end of 2005–06. Though the RBI had issued instructions to advance collateral free loans up to Rs 5 lakh, at the end of 2005–06, only 24% of the total outstanding loans under Rs 5 lakhs were without collaterals'. (11th five year plan, Industries, 2007-12:200-201).

It was also pointed out that even under the NABARD refinance scheme, credit flows were more gravitated to the industrially advanced states of India (Fisher et al, 1997:152). The slow impact of the SGSY program on the rural industrial sector meant subsequent deficiencies in technological development, infrastructural development as well as human capital development in the rural industries. The SGSY scheme for the RNFS has been geographically uneven in terms of different regions in India (Table 7.4).

Table 7.4 Performance of SHGs in Different Regions of India, 2008.

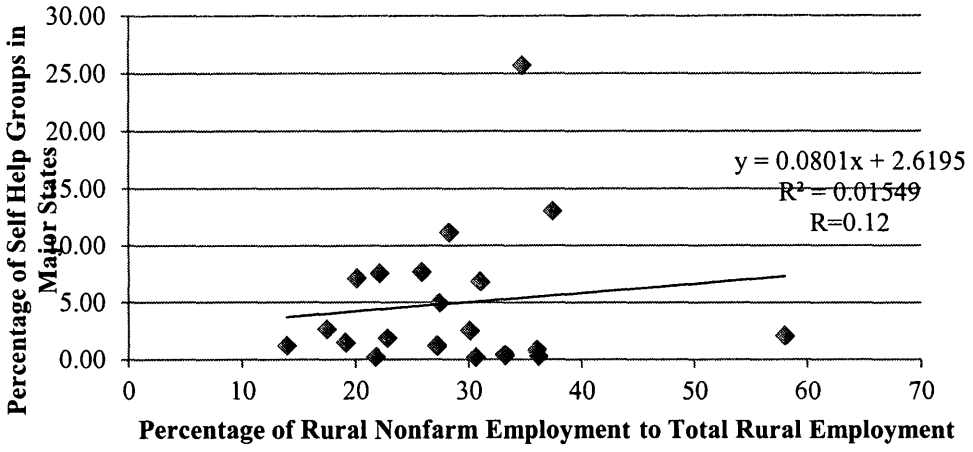
States	No. of SHG	Loans to SHGs (Rs. Crore)	% of SHGs to Total	SHGs per Lakh Population
Northern	230740	851	6.6	156
North Eastern	119520	327	3.4	283
Eastern	672626	2372	19.3	274
Central	405707	1501	11.7	142
Western	374561	1320	10.8	229
Southern	1674811	15896	48.2	703
All India	3477965	22268	100	310

Source: Compiled from Soni, (2010):89

The southern region has demonstrated the most successful outcome in terms of the performance of the SHG program whereas the northern and the northeastern state of India have lagged behind. The performance of SGSY was unsatisfactory in the states with high incidence of poverty such as Assam, Madhya Pradesh, Orissa, Jharkhand, Chattisgarh, West Bengal and Bihar. Although the southern region fared well in the overall performance of the self-help programs of the state, these programs could provide entrepreneurial assistance to only 11.3 percent of the poorest of the rural population in this region comprised of the states of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Lakshwadeep and Pondicherry. Even in the East which comprised some of the poorer states, the credit disbursed as a proportion of credit targeted in 2007-08 was low at about 40 per cent as against to the all India's 73 percent. (Department of Rural Development Report, 2009: 13).

Micro-credit sponsored self-help program for rural nonfarm development has also been spatially uneven with partial success across states in India (Fig 7.7).

Fig 7.7 Correlation between SGSY Self Help Groups and Rural Nonfarm Employment in Major States of India, 2005



Source: Calculated based on data compiled from Lok Sabha, 2005 and NIRD, 2005.

There is some association between number of self help groups in rural areas generated through state micro credit policies and rural nonfarm employment. Although this is a positive relationship it doesn't indicate it is necessarily a stronger one (r square value is < 2 percent). This implies that state policies towards promoting rural entrepreneurship through self help group formation have generated some economic buoyancy in rural areas but have not been able to bring substantial change and geographically even development of the RNFS and rural nonfarm employment India. Other than SGSY, central government allocation for rural development was significantly low for less industrialized states like Kerala compared to industrially advanced southern, northern and western states (Kerala Economic Review, various years). The number of rural urban collaborative industrial estates also varied accordingly with more concentration of industrial clusters and estates

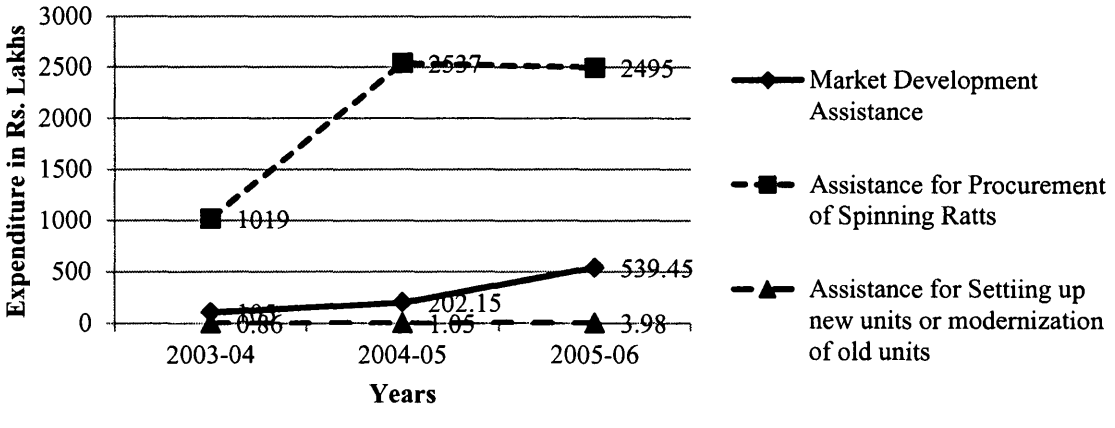
in urban based industrially advanced states like Maharashtra, Gujarat, Andhra Pradesh and Tamil Nadu. While rural industrial clusters were concentrated largely in the states surrounding the urban industrial processes in and around the major metropolitan urban areas (SIDCO-UNIDO list of industrial clusters in states of India, 2012). Such geographical unevenness has had significant impact on differential access to state aid in raw material provision, technological and market assistance.

The outcome of state policies in Kerala also reflected similar trajectory as the national scenario. Studies have found that although the self-help program -- Kudumbashree--was able to generate political empowerment of rural female workforce by increasing their social visibility to some extent, goals of economic support were not realized to its fullest potential. First, the allocation of funds and the utilization rate of available funds have been quite low under the *Kudumbashree* Self Help program of the state. The success of micro-enterprise units was limited (less than 10 percent group based enterprise in most important districts of Kerala (Williams et al, 2011). It was observed that self-help enterprises were close to 3 percent of the total in India in 2005--which was considerably meager compared to many other states given that Kerala has a high incidence of RNFS employment. This number fell further to less than 1 percent in 2008-09. (Lok Sabha, 2009). From providing assistance to the largest number of women self help groups in the country in 1999 as mentioned above, the growth of female self help groups fell to 3 percent in 2009-10. One reason for this may be low allocation of central state funds in the state (3.06 percent in 1970 to 2.81 in 2002) compared to many other

industrially advanced states in India (Kerala Economic Review, 2004) Second, as in rest of India, the criteria adopted for selection of participants led to leakage of funds to beneficiaries who were otherwise not eligible for financial support. Also, such procedures of selection created differences in groups who were supported under the program. Relatively better off income groups in rural areas performed better than economically disadvantaged groups (Williams et al, 2011).

The state has been an important provider of technological support for rural industries in Kerala in recent years, particularly as in the case of coir industry. However, as seen from the figure below (Fig 7.8) while state expenditure in marketing and provision of machines have been high, the overall expenditure for modernization of small and medium scale units in the coir industry have slowed down or growing at a low rate in recent years.

Fig 7.8 State Expenditure for Coir Industry Under Government Schemes, 2003-2006



Source: Lok Sabha, 2007, www.indiatstat.com

This as in the case of the national economy also shows the selective engagement and prioritization of the state when it comes to small and tiny household industries in rural areas. Lack of state financial support for the tiny and small-scale sector in rural areas also explain the low productivity levels of this sector.

State policies in Kerala for the rural nonagricultural industries have been uneven across different rural industries, within the sub-sectors of the same industries and among different producers in the same industry due to the selective engagement of the state with specific sectors. First, as the annual plan for 2011-12 suggests, financial outlays have been limited for the village industrial sector compared to the small scale sector; less for rural industries compared to coir industry (because of greater emphasis of the central government[238]); less for none export in relation to export oriented industry; and less for small producers compared to the medium and large producers within the same industry (Different statistics based on the Annual Plans, 2006-12, Kerala). Such differential outlays favored the high revenue earning industries and sub-sectors of industries over others. Second, my interviews with informants engaged in various rural nonagricultural activities other than coir confirmed that the provision of formal credit did reduce the domination of 'loan sharks' or informal credit institutions, but access to credit has been highly selective across groups. Selection of individual or group beneficiaries for state micro-credit or other assistance depended largely on the performance and productivity

[238] This does not mean, that the coir industry had significantly large amount of funding compared to many other small-scale industries when compared at the national scale. And within the industry too, some sectors were better favored than the others.

levels of the individual and small producers over a certain assigned monitored periods of time. Normally, the small producers are the poorest of the industrial class strata and for them loans are important not only for buying assets for their units but also for household consumption needs. This is partly because incomes from their jobs don't cover essential living expenses and partly due to the decline of social safety support from the state in recent years. Such circumstances then reflect low levels of productivity of such groups constraining the possibility of extending loan terms:

> "The Reserve Bank of India and NABARD understand that credit has to be provided often without collateral from the small and tiny producers. This then puts productivity levels and performances of the individual and the group to access loans or renewal of previous loans. However, the poorest producers use these loans for consumption and other needs and therefore often fail to live up to the desired performance level. They also dry up their loan possibilities from 'thrift funds'. As a result commercial banks, which offer such micro-credit are often reluctant in providing loans for the small producers. Instead, they would prefer the middle or large scale producers (like producer's clusters etc) or the organized section of a rural industry for their investment decisions." -- Interview with NABARD official, Alappuzha.

It is precisely because of this fact that industrial clusters are mostly formed by middle to large scale producers on the one hand and self help programs are more successful when formed by neighborhood groups of affluent housewives whose spouses or children are educated or employed in the service sector within the state or abroad (based on field work interviews). Also the borrowing from 'thrift funds' over the normal allotted loans means that the amount of such loans is very less in the first place. Third, regulatory policies of the state like environment pollution regulations often present a uniform rule for all rural industries. However, in actual practice outcomes are biased for some sections of the entrepreneurs over others. Small enterprises cannot meet the regulatory standards due to large investments necessary. But large-scale processes address such issues with necessary

remedies, but this comes with privileges for the future: 'lack of regular inspections or bribery of government officials allows them to do whatever they want, once they acquire the permission' (Anonymous factory worker). Fourth, slackening regulatory policies of the state for the rural industries in order to accommodate flexible production processes resulted in discrepancies related to trading practices, proliferation of intermediaries integrated production processes and scarcity of raw material due to illicit hoarding and spatialized monopoly over scarce resources (as observe in the case of the coir industry in course of fieldwork). Fifth, the outcomes of specific state policies towards the RNFS in Kerala – as has been pointed out by different studies (Fisher et al, 1997; Das, 2000, Rammohan, 1999; Coppard; 2001) in the context of rural development in different parts of India -- also depended on the strength of local governments in pressuring the state for substantive policy changes in favor of the specific local areas and its economic activities:

> "We have better representation of some sections of small producers or some industries in some villages and constituencies compared to others. This is because of political rivalry between different competing parties in the areas. This is the case of coir workers where the workers and small producers are largely affiliated to the local trade union representation of dominant parties in the state. If the local party is strong enough, then the trade unions associated with them will be powerful as well, which means better opportunities for some workers in terms of access to government funds, marketing, etc. This is also true for the ruling party in the state in general."- Veteran of the Industry, Anonymous

The outcomes of state policies in Kerala are also reflected in the constraints inherent in the economic structure and power of state elites and their relationship with the poor. As seen in the field many self-help programs for the small-scale producers in Kerala have been largely unsuccessful despite the availability of credit and subsidies. First, as mentioned above, since performance and productivity are essential criteria for

availing micro-credit support, state authorities and banking personnel assigned to such projects have the power to decide the course of actions and investment decisions of the small producer's group. As stated in a course of fieldwork interview, banking officials often send inspectors to supervise the quality of products and the output levels of the groups from time to time which leaves very less room for autonomy in the decision making power of the individuals or the group. Second, state administrators often have alliances with subcontractors and agents in direct state aided projects. As stated by an informant-

> "Sometimes large bulk of goods are rejected by project supervisors for low or inferior quality leaving the poor producer to sell it at a much lower price to a subcontractor or dealer. The government officer will then pocket a part of the bargain from the subcontractors as commission"- Anonymous

In the coir industry, as seen in the field, despite state programs to ban private (as opposed to state run) 'depots' to provide raw materials at fair price and to protect coir co-operative societies engaged in raw material procurement (Isaac, 1990), these are still continuing illegitimately in the raw material market due to slackening regulations by state authorities. Third, sometimes non-eligible candidates are able to extract funds for setting up a small enterprise in the village because personal relationships with state agents or client-patron relationship with political authorities. This creates a barrier for the actual beneficiary in accessing a scheme. The entire experience of a candidate was described as such:

> "There are long waiting times for accessing loans to modernize small units. First, the bureaucratic procedure demands lot of paperwork which most small producers are incapable of. So they have to depend or pay someone to do it on their behalf. Second, the state authorities will impose outdated and rigid laws to make the process cumbersome. Third, measuring the vulnerability of the individual they will extract indirect bribes as transaction costs to expedite the process. Fourth, if

> there is political pressure on behalf of another candidate, then the entire procedure will be halted for the current candidate to accommodate the other person. Finally, the harassed individual will give up and go home without anything in hand." -- Informant in the coir industry, Anonymous.

The end result of all these leads to ineffectiveness of a particular policy and limit the reach of the program to targeted groups.

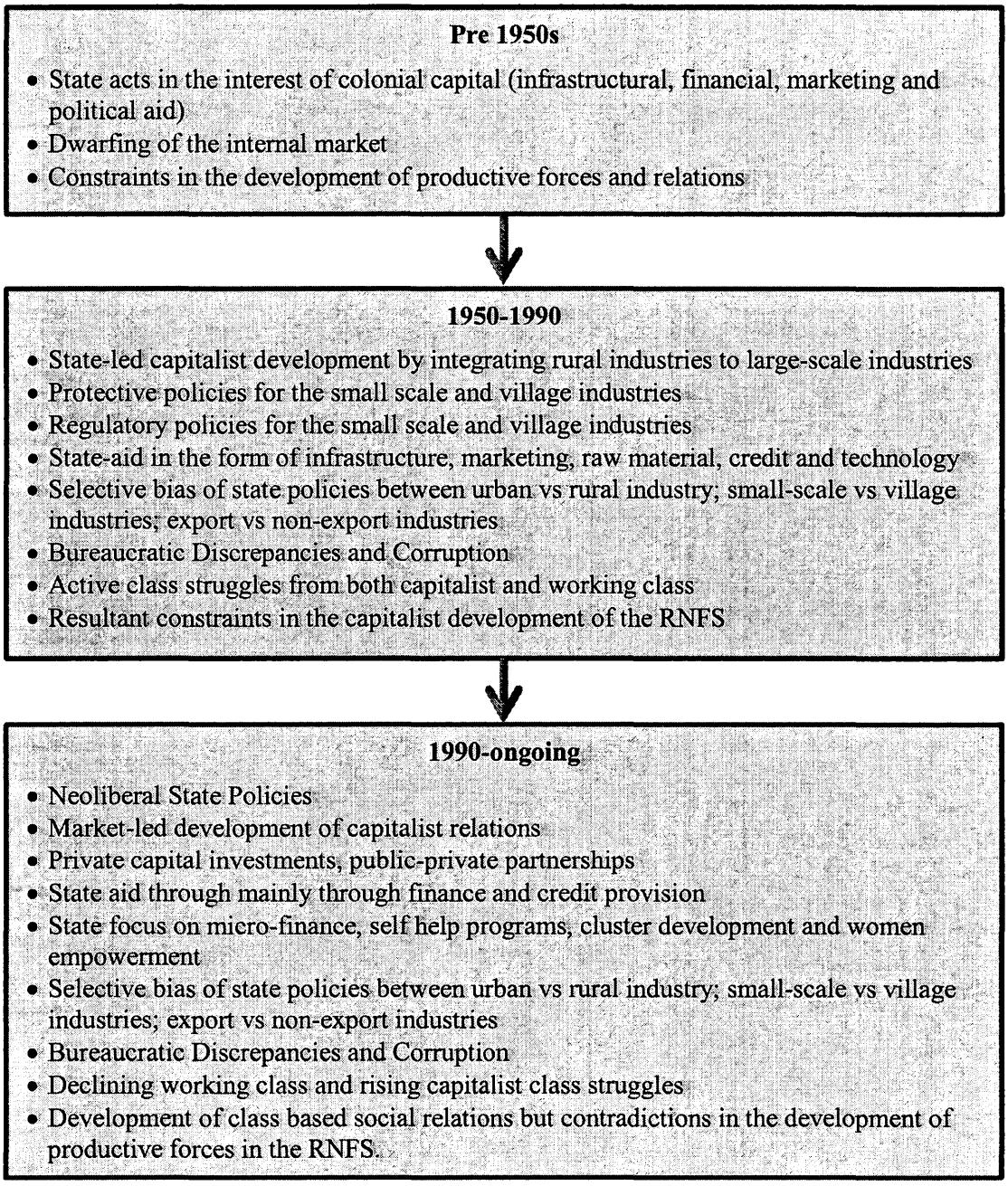
The degree of state intervention in the development of the RNFS since 1990s has been influenced by the overall decline of the state in policy interventions, welfare aspects and budgetary allocation in the current neoliberal period; selective engagement of the state in order to accommodate the interest of private capital and its reliance on different sectors of the economy for revenue generation; as well as the relationship between state actors, propertied classes, economic structure and the rural poor (Das, 2000). At the general level, liberalization of the economy was supposed to encourage market-based competition and resultant capitalist development in small and medium scaled export manufacturing industries in rural areas. However, exposure of small-scale industries to the global market competition without significant development in their productive forces (technological development, raw material supply, infrastructural etc.) becomes a 'compulsion than an opportunity' for such industries (Wood, 1994:15 as cited in Das 2000:642). Rural enterprises are unequipped to compete in a capitalist economy, so they become mere appendages of large-scale global production process, the latter exploiting the former for their capitalist accumulation. Decentralized governance is often detrimental to the growth of the rural nonagricultural sector (largely industries). Due to the poor bargaining power of the rural poor often engaged in dispersed and informal

sector of nonagricultural activities, they are unable to access government schemes and programs due to sheer amount of bureaucratic procedures, corruption and transaction costs. The selective withdrawal or intervention of the state in this and that regulatory policy has been detrimental for the RNFS because of the class biasness of such policies. The past regulatory policies (licensing, registration and trading) of the state were abandoned or relaxed since the 1990s for being unfriendly to private capital processes; such policies were somewhat protective of the small producers in the rural industrial sector. On the other hand state regulatory policies and intervention in areas of Trade Policies, Free Trade Associations (FTA), Association of South East Asian Nations Treaty etc. have removed barriers to international trading and exchange and thereby attractive to private capital from both the domestic and global perspective; these policies do not provide the necessary protection to small enterprises in rural areas.

The increasing privatization of the national and sub-national economies in India in the neoliberal period and the state's dependence on private capital for development of its economic sectors and for revenue generation in the neoliberal era have led specific policies to serve certain class interests which in turn promotes class-inequalities in the context of the RNFS.

Specific focus of state policies for the RNFS in all the three time periods is shown in Fig 7.9 below.

Fig 7.9: Key Themes in State Policies for the RNFS: Timeline from the Colonial Period till the Present[239]



[239] Based on a similar model by Ellis, F. and Biggs, S. (2001). 'Evolving Themes in Rural Development 1950s-2000s', Development Policy Review, 19 (4): 439

7.7. Conclusion:

Through a critical review of the state policies related to the RNFS, this chapter examined how the state seeks to promote the development of RNFS through market relations. While the colonial state supported the emergence of the rural nonagricultural sector (rural traditional industries) in India, state policies for economic development of rural industries was conditional on their ability to generate revenue for the colonial state and potential for trade and capital accumulation for colonial capital. The colonial state operated at the behest of colonial capital. The state made substantial contribution to infrastructural development, trading relations and regulatory support to favor the growth of colonial enterprises. The colonial state's infrastructural support -- in terms of investments in built environment like roads, waterways etc. -- to facilitate any production process that would facilitate the accumulation process of British capital in general helped in establishing transportation linkages for traditional rural industries. The colonial state also provided patronage to colonial capital through enactment of factory legislations for the creation of labor forces for colonial industries in rural areas as well as discipline labor through repressive labor regimes. Different forms of legislative support were also provided by the state for export import policies that roped in rural handicraft industries to British trading practices. Other than supporting credit support and investment in built environments, the colonial state in London also supported export of manufactured commodities from traditional industries like coir from Kerala through trade legislations, exchange rates and tariff controls and establishment of international treaties. However,

state policies were uneven for the colonial and indigenous component of rural industries through skewed policies– in terms of uneven trading and credit policies for indigenous industries, restraining the entry of local capital in colonial ventures and limiting the growth of the domestic market for industrial products.

The intention of state policies for the RNFS during 1950-1990 was, as different studies point out, aimed at integration of rural industries to urban modern industries to promote faster growth and self-reliance – one that promotes the export drive by substituting imports -- of the small-scale rural industrial sector. Considering the emerging export potential the rural industrial sector, a 'target approach' for financial outlay and credit provision was adopted through the first Integrated Rural Development Program (IRDP extensive credit program in e), which was jointly launched by the State and the Central Government in 1980. The IRDP had a sub-target of 40 percent of its loans extended for 'industry, service and business' in rural areas -- roads, railways, ports and inland water transport, rural electrification -- was essentially the responsibility of the state and was aimed at facilitating trade and transport linkages for the VSI with urban areas and across states. The IRDP played an important role in skill formation in the rural industrial sector during this period. The state also took initiative in marketing support for products, aimed at protecting the small producers and village artisans from competition with large-scale industries as well as providing them state support to boost the initial rural industrialization projects.

In practice however, such goals were not realized to its fullest potential. The rural industrial sector was a low priority sector in terms of the industrial policy and planning pursued by the state in the post independence period. Second, according to the policies of the state, economic development of the rural manufacturing sector was to be realized through regulatory policies of formalizing rural industries through licensing and other legal policies for fair industrial practice in rural areas. In effect, however, only a small section of the manufacturing sector (mostly based in rural areas) was legally fomalized. Third, the traditional/artisanal VSI sector was separated in administrative terms from the modern Small Scale Industries (SSI) sector since the 3rd five-year plan, leading to differential credit policies of the state towards the both the sector. Such policies benefitted urban industrial development rather than the rural traditional manufacturing sector. Fourth, rural infrastructural development was only partially successful and spatially uneven. Fifth, the rural industrial sector could not access sufficient credit through various government schemes during this period. Assistance through state programs like IRDP was also geographically uneven across the states of India. Sixth, while credit supply has been limited for rural nonagricultural industries, the share of government assistance for technology, marketing or skill development was markedly different for different types of entrepreneurs. Despite the state's policies to augment economic development of the rural industrial sector, it remained largely an appendage and subsidiary of the urban industrial sector during this time. Studies have pointed out that rural the benefits of government fiscal and financial subsidy to the small-

scale sub-sector have, have flowed to the large-scale sector (Kashyap, 1988: 677-78). Underlying political economic contradictions—driven by the state's overall effort to facilitate the interests of the urban industrial class while keeping the national industrial policy inclusive of both the rural and the urban sectors -- explain why the state incorporated rural industries under a common umbrella with urban industrial development in its post independence industrial policy while in effect such policies catered to the needs of the urban industrial class (Kohli, 1987, 2012; Das, 1999, 2000, 2007; Chibber, 2004).

The rural nonagricultural sector had come to occupy a significant position since the 1990s, particularly due to its increasing potential in rural employment generation and export-based production. With the slow decline of the agricultural sector in both production and employment prospects due to the impact of uneven neoliberal policies, increasing incidences of poverty and rising unemployment has created concerns for rural development in general. On the other hand, the shift towards export promotion as part of neoliberal structural adjustment has led to an overall export drive in the country resulting in promotion of export oriented production in both the traditional (VSI) and modern (SSI) components of nonagricultural manufacturing processes in rural areas. There has been a renewed emphasis on the integration of the rural manufacturing sector with urban – both foreign and domestic based -- export based production processes through labor, product, trade and supply linkages. Promotion of rural entrepreneurship through self-help programs and industrial cluster formation for integrating rural manufacturing with urban

industrial processes by the state is aimed to facilitate private capital investments in erstwhile state-led rural industries, allow free play of market principles and aimed to increase productivity and technological development of the VSI and SSI sectors along with other sub-sectors through generation of market competition. Thus post 1990s state policies towards the RNFS emphasized the importance of privatization and promoted increased entrepreneurial capacity of the RNFS, whereas rollback of public expenditures in all spheres of the economy including the RNFS.

State policies at the national level as well as the sub-national level have been able to instigate to some extent -- market based principles in rural industrial development in the neoliberal era. In terms of rural entrepreneurship there has been an increase in rural enterprises between 1998 and 2005 with rural nonagricultural enterprises. Rural institutional credit for rural nonagricultural sector grew at a relatively faster pace with increase micro-credit to self help groups under SGSY program and an increase in number of self help entrepreneurial groups (particularly women) across states in India. The state has also considerably extended technological assistance and market expansion for rural industries. In terms of infrastructural development during this period, a significant percentage of rural electrification and rural road construction targets were realized. These achievements were similar for all components in the case of Kerala as well.

Although economic growth was achieved in the country's economy including the RNFS in the first decades following neoliberal reforms, this has been accompanied by growing inequalities. The outcome of state policies in the RNFS since the post 1990s has

been uneven across the different sectors of the rural industrial economy and spatially across states in India and has not been able to benefit the poor in the RNFS despite market led economic development in this sector. The share of village industry in total plan outlays has been quite meager and showing a declining trend. This also indicates the withdrawal of the state from the budgetary allocations in general in the current neoliberal period allowing scope of private capitalist investments in rural areas. Although the state took an important initiative in integrating public-private partnerships to provide rural credit for self-help entrepreneurship, there has been a decline in total credit available to rural industries in recent years. On the other hand the ratio of credit provision to the small-scale (SSI) sector has been significantly higher than the village industrial sector (artisans). The SSI sector earned 33.4 percent credit from private sector and foreign banks in 2007. The SSI sector also earned 41 percent of public-private credit in 2007. State policies have been selectively biased in regard to the capital-intensification of the SSI sector, which is largely dominated by relatively affluent classes compared to the village industrial sector which remains largely labor intensive in nature. Technological support has also been relatively higher for ancillary industries. Rural micro-finance projects, asset generation and infrastructural support schemes and human capital formation programs for the RNFS of the state, brought under the umbrella of the Swarnajayanti Gram Swarozgar Yozana (SGSY), has not been able reach the targeted or the poorest of the poor population in rural areas. Micro-credit sponsored self-help program for rural nonfarm development has also been spatially uneven with partial

success across states in India. The outcome of state policies in Kerala also reflected similar trajectory as the national scenario. The success of micro-enterprise units was limited. Technological support from the Kerala state didn't reach the small and medium scale units. State policies in Kerala for the rural nonagricultural industries have been uneven across different rural industries, within the sub-sectors of the same industries and among different producers in the same industry due to the selective engagement of the state with specific sectors. Differential outlays favored the high revenue earning industries and sub-sectors of industries over others. The increasing privatization of the national and sub-national economies in India in the neoliberal period and the state's dependence on private capital for development of its economic sectors and for revenue generation in the neoliberal era (Kohli, 2012) have led specific policies to serve certain class interests which in turn promotes class-inequalities in the context of the RNFS.

Chapter VIII: Development Implications of the Coir Industry in Kerala

8.1 Introduction:

This chapter examines the development implications of the coir industry on aspects of the social reproduction of the working class. Development here is understood as the outcome of the development of productive forces and relations of production, which is objectified in the material means -- employment and wages -- crucial for human existence and reproduction. An increase in employment and wages for the workers is assumed to have positive implications for social development of the working poor. The indicators of social development -- in the form of income, employment relations and physical wellbeing -- provide the material basis by which the working class reproduces itself and its means of subsistence. An important objective of this chapter is therefore to examine the extent to which the development of the rural nonagricultural processes as in the case of the coir industry in Kerala is aiding the cause of poverty alleviation and reducing social inequalities in rural spaces. Working class struggles have played a very important role in the development trajectory of Kerala in general. The role of labor struggles in the mediation and establishment of the development implications of the coir industry for the working class and some of its contradictory outcomes in recent times is therefore another area of focus in this chapter.

The chapter is divided into four sections following the introduction and ends with a conclusion. The second section examines trends and patterns of employment and unemployment as an outcome of the development of the productive forces in the coir

industry. The third section looks at the form and types of wages in the coir industry and how the wage structure perpetrates forms of exploitation and oppression. The fourth section studies the various indicators of social wellbeing -- income, employment relations, physical wellbeing and gender-caste relations -- and their uneven development across sectors of the industry, across space and among the entities of gender and caste. The fourth section observes the role of working class struggles in the form of trade unionism in worker's welfare in general in the coir industry and its contradictory outcomes in recent times. The chapter ends with a conclusion of the main findings.

8.2 Employment in the Coir Industry:

The coir industry has gone through successive phases of economic development in terms of the relations and forces of production. To meet the growing demand for the export of finished goods globally in recent years, there has been a push to enhance productivity levels in the industry, particularly in the raw material and basic finished goods sector. Consequently, the state in Kerala has been playing an active role in introduction of technology in the form of basic mechanization in the raw material extraction (fiber), processing (yarn) and basic goods (handloom mat weaving) sector. Although basic mechanization techniques (in the form of semi-mechanized spinning wheels and handlooms) have been introduced across the industry, state aided mechanization process has only been partially successful. The technological process has met with contradictions related to mechanization induced unemployment and

underemployment of the workforce and uneven development across the main sectors and classes of the industry. This has made the process of technological development in the industry unsustainable in the long run. The impact of economic development in the coir industry has had substantial impact on employment and wages for the workers in the industry.

Employment trends in the coir industry at present show uneven trends across the two sectors of the industry and across the coir belt; there is significant amount of underemployment and large-scale informal employment; and employment is highly irregular. Historically, the coir industry was able to generate large-scale rural employment during the colonial period, which continued to be the trend in the post-independence period as well. The period between the 1920s till the 1960s was the so-called 'golden age' of coir industry: during this period the industry flourished, generating large-scale rural employment possibilities (Coir Board, 2011). Coir work, particularly the household-spinning sector, served initially as a cushion for landless workers migrating from the agricultural sector to the nonagricultural sector in rural areas[240] during slack agricultural seasons or when faced with the inability to find regular employment in agricultural work. As a veteran in the industry said: "coir work in its golden days granted a level of prosperity to everyone and offered hopes of a better future". Landless labor and small peasants took to coir spinning independently as well as through the 'put-out'[241]

[240] Cf. Eapen, M (2001).

[241] 'Put out' system involved the provision of raw materials (fiber to yarn producers and yarn to coir weavers) to workers by commercial contractors or small traders/dealers, who would then sell the products to the British factories. (See, Isaac, T.M.T, 1990).

system of the British factories to earn extra household income. Coir spinning (mostly rope making from yarn) has been part of domestic activity of most rural agricultural households for agricultural purposes or household needs. Some workers developed skills in weaving coir mats later on as well through their employment in British manufactories (which combined spinning and weaving work under one centralized factory setting). Such diverse opportunities outside agriculture gave workers a degree of economic and social freedom from unequal social relations in a feudal agricultural system in Kerala until the 1970s.[242] Landless laborers and small peasants also diversified into coir production as it offered a viable alternative for income generation in home based manufacturing with limited means of production, which were partially under their control.

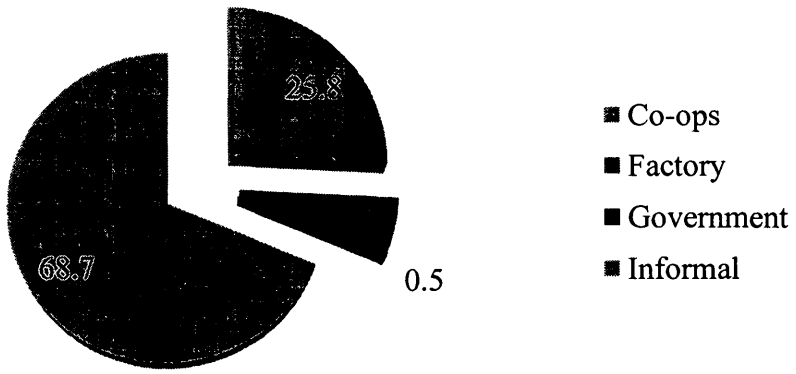
Although fluctuating trends in the global market led to intermittent periods of idleness in production in the past, patterns of unemployment were periodic and uneven across the raw material and finished goods sectors. In the early phases of the development of the industry during the colonial period, although agricultural workers were diversifying into coir work, ties with the agricultural sector were still not entirely cut off. This allowed for workers to overcome periodic unemployment situations in the industry when the demand for a specific type of coir yarn scored higher in the market than others. As seen in the previous chapters, quality and type of coir yarn varied regionally and workers engaged in the production of a specific type of yarn hardly took to production of another type, even when the market demand for the latter was higher than

[242] Similar historical trajectory in the garment industry in Tamil Nadu was indentified by Chari, S. (2004).

their own variety at specific point of time. This seasonal unemployment regionally has been seen as a way of work sharing in the past wherein available work at a particular period of time was equally distributed among workers without any scramble for available work (Isaac, 1990). Moreover, agricultural related work (even outside the harvest season, in the houses of the landlords etc. still provided as a fall back option for a coir households from time to time). This was also possible at that time due to a smaller size of the surplus population and a fairly even pattern in the industrial cycle even when market conditions fluctuated.

Up until the 1990s, the coir industry employed close to 100,000 people directly or indirectly associated with the coir industry. More recent estimates show that the industry supports about 18 lakh people through both formal and informal employment (Coir Board Report, 2010). However, official estimates (Coir Board, 2008) show only about 4 to 6 lakh formally employed workers through private registered enterprises, state sponsored enterprises and co-operatives whereas the bulk of the employment is concentrated in the informal or unorganized sector. Formal estimate of aggregate data for employment and unemployment in the coir industry are not directly available for different time periods and hence limit any possibility of statistical analysis.

Fig 8.1. Sectorwise Employment in the Coir Industry, 2010



Source: Coir Board Report, 2010

However, recently a few sources[243] have carried out sample surveys in the coir industry, which offer some preliminary basic estimates about employment in the industry. Fig 8.1 above indicates the sectoral employment of coir workers in the industry based on a sample size of 2500 coir workers out of which 78.6 percent were female workers and 97 units spanning across different types -- co-operatives, government enterprises, co-operatives and export production factories. Fig 7.1 clearly indicates that a significant size of the sample of coir workers find work in the informal sector (68.7 percent) whereas the factory sector mostly under the domain of the big exporter-producers employ only 5 percent of the employed workforce. On the other hand government sponsored enterprises and co-operatives only account for 26.3 percent of the total employment. Although the

[243] CSES, 2008; Coir Board Report of Survey of Coir Workers, 2010. The definition of producers and workers in the total workforce are aggregated rather than separate categories in such data as conceptually these categories are interchangeable due to the nature of employment.

sample size is small (2500 coir workers), fieldwork observations and data confirm this overall pattern.

The geography of employment in terms of concentration of the different sectors of the coir industry in different districts of Kerala is also uneven in character. Only a small proportion of the workforce was employed in the formal sources of employment (factories, government organizations) whereas the informal sector has been a dominant source of employment in all the districts. Employment in co-operatives is more prominent for regions outside the coir belt except Ernakulam district. However, a comparison of the poverty rates in the districts, employment in co-operatives and number of days of employment in the coir industry for 2008 and 2010 present an interesting picture. According to Zachariah and Rajan (2010), among the prominent coir producing areas in 2008, the unemployment rate was highest in Ernakulam district (35.92 percent) followed by Kollam (34. 81 percent), Alappuzha (34.31 percent) and Thiruvananthapuram (31.75 percent). The total employment rate in Kerala was 32.47 percent with Idduki district (not an important coir producing region) recording the highest unemployment rate in the state (42.35 percent) (Zachariah and Rajan, 2010). Unemployment rate in the coir producing regions has been higher compared to the total unemployment rate in the state. Although data on unemployment rate in the coir industry is not directly available, an estimate can be made of the employment situation in the industry from the number of days of employability in concerned districts for 2010.[244]

[244] District-wise data on employment in the coir industry is only available for the year 2010.

Aggregate figures of employability in the coir industry ranged between 101-150 days and 150-200 (between 5-6 months in an year) on an average. 62 percent of coir workers on an average were able to find employment for 150-200 days in Ernakulam district, 49 percent in Kollam district, 27.1 percent in Alappuzha district and 33 percent in Thiruvananthapuram district (Coir Board Report, 2010). It was also seen that Ernakulam district had a greater percentage of coir workers employed in co-operatives (80-90 percent) followed by Thiruvananthapuram (50 percent), while workers largely worked in unorganized/informal units in Alappuzha (82 percent) and Kollam (97.1 percent). All other districts of Kerala also reported higher percentages of workers in the unorganized sector in the coir industry. While workers are able to find employment in the co-operative sector in the two districts (Ernakulam and Thiruvananthapuram) the number of days of employability of a coir worker in these districts on an average suggest that employment has been highly irregular. Also, employment in a coir co-operative society doesn't indicate that these co-operatives are functional and workers are able to find work or get paid regularly. As discussed in Chapter 6, a large number of co-operatives are idle in the coir industry at present. Statistics on coir co-operatives based on Coir Board estimates for 2008[245] indicate that the number of co-operatives sitting idle or being liquidated were 46 out of 68 coir co-operatives in Ernakulam, 41 out of 90 co-operatives in Thiruvananthapuram district, and 62 out of 120 co-operatives were idle in Kollam (Coir Board Report, 2008). This indicates more than 50 percent of co-operatives are idle in the

[245] This data is only available for 2008.

districts where employment in co-operatives was reported to be higher. On the other hand, 92 idle out of 267 co-operatives in Alappuzha suggest fewer idle co-operatives. This then indicates that employment figures in districts other than Alappuzha also have to take into account the number of co-operatives in this area as well as the total distribution of coir workers in the districts, the data for which is unfortunately not available.

An alarming concern in the coir industry is the gross underemployment due to surplus reserves of labor in the rural nonagricultural sector:

> "I work for a subcontractor who pays me piece-rates for the amount of yarn I can produce in a day. I often tell him that the amount of time and wage he allots per unit of output is very less given the hardship involved in the production. But I cannot press this beyond a point because then he will tell me that he can distribute my share of work to other workers if I cannot do it myself. I of course cannot produce such amount of output myself. But rather than forfeiting wages by giving up work to someone else, I ask my mother in law, who is unemployed because of her age or my children to help me to meet the daily output requirement. So, it is three people's work for the wage of one." -- Interview with Coir worker in Ochara, Kollam.

The recent technological changes, particularly in the raw material extraction and processing sectors, (which I have discussed in chapter 6), have also aggravated underemployment and unemployment as technologically displaced workers sit idle as surplus floating labor reserves:

> "I installed a semi mechanized handloom in place of one manual handloom in my unit. I have one more manual handloom in my unit. We used to employ 6 workers, 3 per loom before. Now, three workers have lost their jobs. I had to hire one new worker who is trained to operate the mechanized loom. Of course, I can pay additional wages to the new skilled worker because the mechanized loom is efficient in production. But, then what do we do when we don't have sufficient or regular work. The loom is idle for longer period and the worker has to search for work elsewhere. So, I lose money, I lose a worker as well. If I have work, I hire a casual part time worker for the mechanized loom. The three other workers also sit idle when work is irregular. But then, handlooms take more time to produce compared to mechanized loom. So, when work is slow, the slow pace of the handloom works, if not for me in terms of output productivity, at least for the workers who are not unemployed for a longer period." -- Interview with a Medium-scale Unit owner in Aluva, Ernakulam.

Decreasing availability of work in recent times due to shortage of raw materials and competition from other states[246] has also added to the share of underemployment in the industry. This is apparent from the idle status of many coir primary and husk co-operative societies which are registered and considered active, but are not being able to provide work for all their members. Coir workers particularly spinners and weavers who have formed self-help groups under the state aided micro-finance programs as stated earlier also do not find regular full time employment due to part shortage and part competition for available work.

Employment and employability is irregular in the coir industry. As seen from data sources, 34.1% of coir workers were employed on an average for 150 days in a year in 2008 against 22.3 percent who were able to find employment for more than 250 days.[247] Although some workers did find work beyond 250 days in a year, but this was more so in the case of workers employed in factories (56.2 percent in 2008) than for co-operatives (12.5) or household workers (21.7 percent) (CSES, 2008). The same trend continued in 2010 as well with 32.8 percent of workers employed on an average for 150 days in a year against 17.2 percent who were employed for over 250 days (Coir Board, 2010). Geographically too, workers in Alappuzha, Kozhikode and Thrissur (outside the coir

[246] Villages in the bordering states of Kerala-Tamil Nadu (Pollachi) and Karnataka have come up recently with coir fiber (brown yarn) production as well as yarn production at lower costs than in Kerala. Since brown fiber is now produced extensively in Pollachi and in Coimbatore in Tamil Nadu, these places have also diversified into yarn production. On the other hand, scarcity of 'white fiber' is forcing small and medium scale producers to import yarn from Pollachi into Kerala at higher prices (due to localized monopoly over price) and other transaction and transportation related costs.

[247] Although recent figures of annual man-days in agriculture is not available in aggregate numbers, Kannan (1995) pointed out that annual agricultural man days have declined from 160-200 days to 115-147 days in a year between 1950s-1990s (Kannan, 1995: 2656).

belt) districts had higher employability of more than 25 days a year. District-wise employability depends on the concentration of small producers and type of yarn they spin in a year, which may be relatively higher in demand or require more time to produce than other places. Number of days has a significant impact on household income and for workers who are engaged in different sectors in the industry:

> "I am able to find coir work for only 100 to 200 days a year which puts me in a lot of trouble for the rest of the year. I do odd jobs in the industry like defibering work and occasionally spinning work although I am a man and spinning is mostly women's work. But as you know once we *ret* the husk it takes some time [4-6 months] for the husk to decompose and ready for defibering. So, I have no work during this period and then have to look for other work outside the industry. Part time or seasonal work doesn't pay you much unless you have the skill or the contacts to get a well paying job. I often think of working in the nearby towns and cities as construction workers, but there is a lot of competition in such jobs which are also seasonal anyway." -- Interview with worker in Thuravoor, Alappuzha".

Workers despite being unable to find employment throughout the year in the industry do not seek employment outside the industry due to lack of skills:

> "Most of the female workers in the industry are unskilled or semi-skilled and coir work has been their principle occupation for generations. They cannot find other work easily and most of them do not have the inclination to find work other than coir either. So, some end up working as domestic workers or other low paying jobs available near the place they live. For some others their household members support them during days when they don't work." – Interview with an observer/researcher (anonymous) of the industry.

Workers' attachment to their place of residence also poses as an obstacle to their search for employment outside of the industry. This is especially so for female workers who are the mainly home-based. Balakrishnan attribute the home-based nature of coir work for the relatively lower mobility of workers outside their place of residence (2005:128-29).[248]

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[248] 'Mobility of workers in household units is zero. Hired workers also do not have much mobility, the reason being that they also are homesbased. Their experience has taught them that the demand for their labor had never been stable and sustaining. Therefore, they do not get attracted by an offer of employment in coir away from their home and village...Another underlining reason for the lack of mobility of wokers is that more than 85 percent of the work force in coir industry consist of women' (Balakrishnan, P.K. 2005:128-29).

In a typical coir village (where most workers are engaged in coir work) workers are not only very place-based but also are a close-knit caste group (*Ezhavas*).

> " We have been born into a coir household and raised as a coir worker in this village. We have been trained to become spinners generationally and most members of this village belong to the coir community. Most female coir worker gets married within their communities. Our spouses also work in the industry as factory workers or as additional workers needed in factory or co-operatives. Of course our children are not bonded to coir work like us. Our lives revolve around coir. Even when girls are married outside the village, this doesn't mean that all their ties are broken from the community." -- Focus group interview in Chenganda village, Cherthala, Alappuzha.

Coir communities are close knit communities, members of such communities share similar background and life-employment trajectory as other members of their kind. Migration just for work seems impossible for almost all female workers, while male members do out-migrate to other states outside Kerala or countries outside India for work.

8.3 Wages in the Coir Industry:

Wages are limited in the coir industry and the existing wage system reflects relations of exploitation and control of workers by their employers. The dominant form of the wage payment in the coir industry is in cash or monetary payments. Some wage-payments may be in kind or a combination of in-kind and in-cash payment. But this is quite occasional and specific to certain circumstances:

> '...sometimes I spin a little yarn for my neighbor who is a full time coir worker. She pays me sometimes if I can add to her required output for the day. But most other days, I just do coir work for her in exchange for a meal or something I need or also as part of domestic work." -- Interview with Ponama, a part time coir worker.

Cash-wages (from here, wages) in the coir industry however are highly uneven across the two sectors (the raw material or yarn spinning sector and the finished products or weaving sector) of the industry. The average statutory minimum wage for coir workers (defibering, spinning and weaving) was Rs. 172 per day in 1972 (The Hindi, 2010). The rates were revised in 2012, by the Labor Commissionerate, Government of Kerala, to an average of Rs 200 per day with variations based on the difficulty level and physical hardships in the labor process (Labor Commissionerate, Government of Kerala, 2012). Stipulated minimum wages[249] also vary locally depending on the variety of coir yarn[250] (Labor Commissionerate, Government of Kerala, 2012). However, these rates have never been fully implemented or do not meet its fullest potential either in factories, in the co-operative societies or in the independent informal units of the small and middle producers. While minimum wages are applied to some extent in the big factories, workers feel that it doesn't commensurate to the amount of work which they have to do (interview with striking workers in Alappuzha). On the other hand, although minimum wages are applied in co-operatives, most co-operatives sit idle for a significant part of the year without work and this reflects on worker's wages. Minimum wages are never implemented in the informal units where all forms of legal or standard regulations in wages or employment are evaded due to the informality in the conditions of work. Also

[249] Between Rs 100-150 in average for better quality yarn like *Anjengo* or *Parur*[249] against Rs 80-100 for Beach Yarn etc) as well as across different sectors of the industry (Rs 75-80 for defiberers, spinners and handloom weavers against Rs.100 to 150 for factory level work.

[250] These wages are all less than 2 dollars on an average.

in both co-operatives and informal units workers are now paid mostly in piecemeal wages whereas minimum wages is applicable for daily wage rates, which was prevalent in the industry during the colonial period and up until 1970s. Even after several episodes of trade unionized price hikes in the industry, an average coir worker particularly in the spinning sector does not earn more than Rs. 80 (less than 2 dollars) a day whether in the form of daily or piece wages (The Hindu, 2010). Out of 13,700 coir workers across Kerala (based on a recent sample survey), only 3.7 percent of the workers earned an average wage of Rs. 150 whereas bulk of the workers (39.4 percent) earned less than Rs. 50 per day (CSES, 2008). Among them, those workers who worked in private factories (59 percent out of the total of 3.7 percent) could earn a salary of Rs. 150 on a daily basis whereas less than 1 percent on an average of all sectors combined (co-operatives, informal units and self help groups) could earn Rs. 150 (CSES, 2008).

Regarding the forms of wages in the industry, there are two variations -- time wages and piecemeal wages, the latter being largely dominant and an important method of exploitation between classes. The time wages are determined as hourly or daily wage rates and operative in some factories of the big exporter-manufacturers, whereas the rest of the industry largely operates on piece-rates, which is determined by wages per piece of output. Wage determination is different from wage payment. Wages particularly for non-factory work in the industry are no longer *paid* on a daily basis (except for some factories) in the industry. Daily wages were effective largely in the industry during the colonial period and up until the 1970s and 80s until conditions changed:

> "Implementation of daily wages meant that employers had to implement minimum wages in their units on worker's demand and protest for raise in wages. Wage related issues have been central to working class struggles between 1950s and 80s in the coir industry. With the state supporting worker's struggle and their demand for wage hike until the 1990s, employers were faced with higher costs of production with every wage hike in minimum wage, particularly when faced with the periodic market induced low demand for coir and partly" –Interview with Trade Union Leader in Alappuzha town, Alappuzha.

These were some of the reasons for the adoption of piecemeal wages in the industry from the later part of 1970s. Also rise in the surplus labor reserves in the industry over time made it possible for employers to keep wages low, based on worker's competition among themselves for employment.

Employers implement piece rates for a number of reasons. Based on an institutional logic, first, piece-rates increases the per hour productivity of labor with worker's self-imposed incentive to earn more in less time. Second, piece rates also reduce the costs involved in supervisory work associated with the daily wage rate system (Gidwani, 2001:72-73). Third, internalization of the disciplinary action of the piece-rate wages which the workers self-impose on themselves works favorably for employers in their quest for surplus labor extraction (both absolute and relative) through the principle of labor control. Fourth, piecemeal wages are also effective on the part of the employers to stratify the labor market (based on incentives of higher or more remunerative wages based on performance of workers and quality of work) and keep the working class divided in terms of their class-consciousness (Marx, 1867). Also, as mentioned earlier, piece rate system allows for the evasion of minimum wage legislations, which are applicable only in the context of daily wages (Gidwani, 2001:73).

The relationship between the length of the working day and the wages earned is an interesting one.[251] Once the daily wage rates have been fixed, the employers have control over the working day and its length. So for instance if the daily wage rates are fixed at Rs.70 for an 8-hour working day, the employers (the big exporter-manufacturers and middle producers) make it certain to extract the most possible surplus value by lengthening the working day to 10-12 hours. This was the case in the centralized factory setting during the colonial period continuing much into the 1970s, which prompted vigorous working class struggles and trade unionism for increase in wages and reducing the working day (see Isaac, 1990; Heller, 1999). As a result of the conflict on the working day, time wage system is mostly abandoned in favor of the piece-rate system.[252] As Balakrishnan (2005) pointed out, the piecemeal rate per product (yarn or coir mat) is often arbitrarily fixed/decided by the employer/subcontractor without following the standard minimum wage rates prevalent in the market as per government regulations. Here the employer takes advantage of the informality (non-contractual/non-legal bindings between employer and worker) of a production unit in terms of employment and wage decisions. Also, there is no standard limit to the quantity of product (yarn or mats) produced in a day. The common norm is to produce as much as a worker can at a given

[251] 'The unit-measure for time-wages, the price of the working-hour, is the quotient of the value of a day's labor-power, divided by the number of hours of the average working day' (Marx, 1867: 685).

[252] The piecemeal wage as Marx had pointed out in Capital Vol I (1867), is a modification of the time wages, wherein the price of labor remains constant and the levels of wages increase or decrease at a given price based on the quantity of output. This in turn depends on the capacity to and quality of labor and of course the intensification of the working day. In time-wages, labour is measured by its immediate duration; in piece wages, by the quantity of products in which labour has embodied itself during a given time. The price of labour time itself is finally determined by the equation: value of a day's labour = daily value of labour-power (Marx, 1867: 694).

rate to earn the maximum wages for a day. The hardship in producing a product, labor time required per amount of product as well as other miscellaneous conditions (eg. weather constraints etc.) are not part of an employer/subcontractor's concern. The worker is solely responsible for the labor process himself/herself and the employer sees that his requirements are met. As seen in the field, since wages are now determined based on the output of the quantity of use value (meters of yarn or number of basic mats produced) and price of labor per hour/day being constant, there is no limit to the length of the working day. All that matters now, is how much quantity of output is extracted based on the average capacity of the worker (in terms of skill level, dexterity, speed and physical health) to meet the average daily standard. On an average, a defiberer earns Rs 50 for 100 husks of coconut; a spinner earns an average of Rs 6 for 150 meters of spun yarn and Rs. 8 per basic handloom matt (field notes[253]).

The piecemeal wages reinforce relations of exploitation and perpetrate forms of social oppression. Although the piece rates are determined based on the output level, achieving this target takes almost 12-14 hours. Since workers are paid on the basis of the quantity produced, everyone tries to work maximum hours in a day to make the sustenance wages. As seen in fieldwork, workers are forced to forfeit a part of their daily wages if they do not meet the average maximum quantity of outputs in a day:

> "We always fix the rate per piece based on the prevailing prices in this area and on an average estimation of how much can be produced in a day. Workers have to be responsible for their own interests. If they are efficient they make more money, if they are slow and careless with their work they loose. Piece wages for me is a fair system -- you get paid for what you produce. Most

[253] Cf. Rammohan, 1999; Rammohan and Sundaresan, 2003).

> workers are lazy and inefficient-they while away a lot of time. That's why they do not earn much and the blame falls on the employers." -- Interview with a Subcontrator at Aluva, Ernakulam

Workers do get paid per piece of output, which comes across as a fair practice. But as the wage is already fixed at a lower rate, the wages are insufficient if the targeted goal is not achieved. On the other hand, the quality of labor is self-controlled and self-driven under the piece rate system. In other words, efficiency is achieved by intensifying the working day, and the worker himself now determines the length of the working day. No supervision is necessary in this regard. Workers have to maintain their average efficiency and quality of their labor power in order to get paid the full price for the output produced and indeed to remain employable.

> "We have to be really on our toes regarding output in a day. No time for illness or other household urgencies. Everything has to be stable for us to reach our target for the day. If we are slack, we lose our deal with our headman who gets all the work orders from the subcontractor. Many of us have not been able to keep up and therefore are now idle with no work. These workers who cannot keep up to the pace are then kept as reserves. There is no dearth of workers here." -- Interview with a household Coir Spinner in Arattuvazhy in Alappuzha.

Sometimes, entire output (yarn or mats) may be rejected if the desired quality of the product is not met. Under such circumstances the small producers often end up making distress sale of their products at lower prices.

Piece wages lead to competition and division among workers as well. A trade union leader mentioned thus:

> "Piece wages seem very attractive at first but over time leads to very individualized approach to work, leads to mistrust among worker and perpetrate an overall sense of betrayal if the headworker cannot distribute work equally among his team members [also in the case of self-help groups]. Insecurity of work and changes in priorities ultimately break down the collective approach and spirit among workers. This is particularly so for the workers engaged in informal working conditions where competition for work is very intense. Also, work conditions are self-imposed by the worker, so one worker's immediate concern is not the priority of others. Such issues have also

> contributed to breakdown of many micro-financed self-help groups[254] and trade union resistances as well." -- Interview with a Trade Union Leader in Thumpoly, Alappuzha.

Also, since work is subcontracted through layers of middlemen based on informal contracts, piecemeal wages perpetuate extreme forms of exploitation. Wages between sub-contractors and workers are often mutually 'agreed' rather than minimum wage rates. Subcontractors are not ready to pay minimum wages to his workers unless every other subcontractor in the area does the same. Also, workers who are not traditionally coir workers (like agricultural workers or workers from other nonagricultural sectors) are readily available to work on agreed wages if the coir workers resist such practices. Piecemeal work also contributes to underemployment as mentioned above -- entire family including unemployed members contributes to increase the output of a coir household for the wages of one person (fieldwork observations).

The coir industry has therefore been historically among the lowest paid manufacturing industries in Kerala.[255] Minimum daily wage for an agricultural laborer according to 2009 is Rs 200-250 on an average for an 8-hour working day and may even go up to Rs. 300-350 per day based on locally specific rates. Same rates of Rs 300-500 are also applicable for head-load workers [working for transport industry], construction workers as well as domestic daily laborers (Labor Commissionerate, Government of

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[254] Although a self-help group works as a team, the form of wage is still based on piecemeal approach for all members of the group. Collective wages for the group as a whole only follows later if profit is made which is hardly the case.

[255] Other piece rate wage rural industries are the brick making industry (Rs. 105 piece-rated) and Beedi or local cigarette (Rs.100 piece rated). However, daily or monthly wages prevail in other export oriented handloom industry (Rs,300 daily or Rs. 3,500-4000 monthly) and fish-peeling work (Rs. 200 daily) (Labor Commissionerate, Government of Kerala, 2012).

Kerala, 2012). However, these kinds of activities are seasonal in nature. In general, wages for rural export oriented industry like cashew, seafood and rubber like coir have lower wage rates than in agricultural or the other mentioned nonagricultural activities in rural areas[256], but in some cases better than the coir industry. Also, any increase in nominal wages in the coir industry is much lower than real wages[257] under current market prices and inflationary economy (fieldwork interviews). Recent reports point out that wages in the industry have not increased proportionately with rise in price of coir exports in recent years as well (Quoting G. Sugunan, President of Kerala Coir Workers Union, Hindu Mazdoor Sabha, The Hindu, 2010).

Other than wages, workers are also entitled to welfare, gratuity and pension funds sponsored through co-operatives as well through the factories of the exporter-producers:

> "These funds aim to provide workers with retirement benefit and social support funds like marriage or death. Both employers and workers contribute equally to these funds from their wages and incomes earned. While the exporter producers pay 5 percent of the profit earned, co-operatives also put Rs 50-80 to these funds per worker. In the co-operative spinning sector, 20 percent of the salaries are deducted for pension funds from coir workers." -- Interview with co-operative president in Muhamma, Alappuzha.

However, the returns from these funds are unreasonably low. An average retired coir worker gets as low as Rs 100 per month as monthly stipend from their pension funds (Human Development Report, Kerala, 2005). Also, most social welfare funds do not support health care costs for ailing workers or for supporting training or educational enhancement of the families of coir workers. Annual bonuses during festivals like *Onam*

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[256] This trend in wages therefore agrees with the existing literature in India that points out how majority of rural nonagricultural activities are low return opportunities and most landless rural labor take up such low paying jobs under conditions of distress (Jeffrey, 1984; Lerche, 1999;Wilson,1999; Eapen, 2001).

[257] Real wages are adjusted to inflation.

or *Vishu*[258] are also dependent on annual profits from the industry and state budgets. Workers have to borrow money from private moneylenders to meet emergency or social expenses, which are not covered by welfare funds.

Employment and wages of workers in the coir industry are subjected to the structural needs of capitalist accumulation, which is based on the principle of profit maximization by extracting surplus value from workers by the employers. Such processes then have varied implications on the social reproduction of the working class.

8.4. Social Implications of Development:

Employment and wages in the coir industry have significant implications for social indicators of development like household incomes, employment relations, health of workers and gender and caste relations.

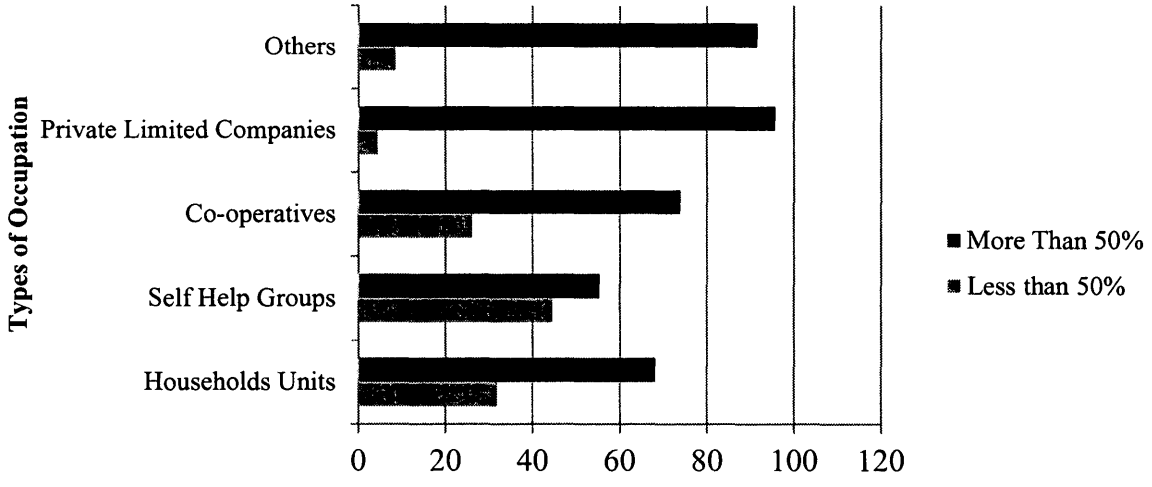
a) Income: Impacts of employment availability and of wages in the nonagricultural sector are reflected in the household incomes of coir communities.[259] Income of coir households is largely limited and uneven across the sectors and different households engaged in different occupations. This is because of lower wages and differential wages across the two sectors in the industry, irregularity in the availability of work or employment in a year, inability of workers to diversify employment in other

[258] Harvest festivals in Kerala.

[259] Existing literature suggest that the rural nonagricultural sectors are positive livelihood and income strategies for many households whose primary income is from agriculture as also for those households who have shifted entirely to nonagricultural work as their main occupation. While the first proposition may be partially true, the second one needs to be examined as we have clearly seen that employment and wages are not even across all types of activities in the rural nonagricultural sector.

sectors due to skill requirement or place based ties and lack of consistent higher paying income sources outside the industry.

Fig 8.2. Percentage Distribution of Coir Workers According to the Share of Coir Industry in Total Household Income in Kerala, 2008



Source: CSES, 2008.

For coir households, about 69 percent of workers earn at least 50 percent of their household income from the industry (CSES, 2008). However as evident from Fig 8.2 above, although the industry is an important source of income in all categories of occupation; levels of household incomes tend to be relatively higher for those workers who work for co-operatives and for limited companies (export based production factories) and other private enterprises (corroborated by fieldwork observations as well). Although coir is a significant source of income for household units (of the less affluent middle and small producers), they still have to look for income opportunities from other nonagricultural sources, as income from coir is quite meager and increasingly so in recent

years. Workers engaged in self-help groups also cannot depend entirely on the industry for their household income and have to diversify their employment opportunities.

On the other hand, in those coir households where the male members work in the factories of the big exporter-producers or state-run coir enterprises and female members work independently as small producers or in co-operatives, income from coir becomes a significant source of income as all members are employed in the industry. Again, co-operative workers (although most of them are female workers) also have a larger share of their income from the industry, as wages in the co-operatives are relatively higher and consistent than the informal sector. It was also seen in the field that spouses or children of some female co-operative workers also worked outside the industry (sometimes in the service sector), which doesn't require the household to be entirely dependent on coir:

> "My husband and sons work in the service sector and have never been associated with coir work. I do coir work as I used to be a coir co-operative worker my entire life before my marriage. So, coir work adds to the income in our household although it is very less. Thank God...my husband has a steady job as a security guard and my son is a clerk in a bank, we can sail through easily than most other workers in the area" -- Interview with a co-operative worker in Chenganda Village, Alappuzha

It was also observed that children of coir workers are not necessarily employed in the industry, although they helped their families with their coir work. The fact that coir work is a low-paying occupation makes the younger people with some education move away to other sectors of the rural or urban economy.[260] As mentioned earlier, the younger

[260] Younger generation is also less interested in traditional work occupation like coir due to economic status and cultural reasons. Similar trends have been pointed out by Kelly (1999) in the context of Philippines (1999) and Rigg (2006) in the context of Thailand.

generation of coir workers is increasingly getting disinterested in pursuing the same career as their parents given the insecurity of employment and wages being as low as they are. They rather prefer more regular paying jobs and often migrate to urban areas for better income opportunities.

> "My eldest son is high school drop-out. So, he cannot wait for coir work to come and then get paid seasonally. So, he works in Kochi for a construction company sometime and do head-load work at other times. My daughter has joined a garment production unit in the village and work at home part time. Both of them assist me sometime so that we can spin considerable amount in a day" – Interview with household worker in Alappuzha.

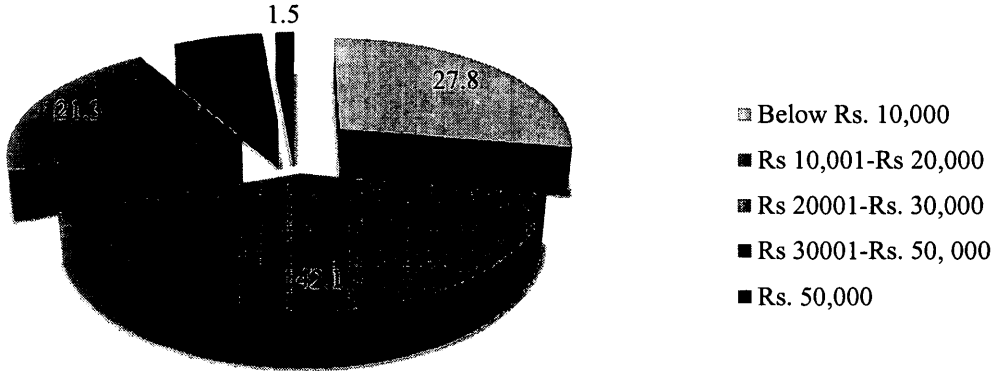
Recent data shows only 15 percent of coir workers in the age group of 30 years or less whereas, the majority of the workers are above 45 years or so (CSES, 2008). However, better income opportunities within or outside the industry are not always easily available or stable enough. Such issues then perpetrate patterns of underemployment.

Although, coir work is a significant contributor to household income for coir households (where the income earning members-generally 3-5 members- are engaged in the coir industry), the overall income opportunity from the coir industry seems to be lower for those households, which are entirely dependent on the coir industry. Also income levels are not always even across households. Fig 8.3, indicate that 42.1 percent coir households earned Rs, 10,000 to 20,000 a year (less than 500 dollars) in 2010.[261] However, these aggregate figures do not reflect the fact that, in a typical coir household,

[261] The income based Poverty Line (BPL) for 2012, is estimated at Rs. 672.8 (approx. 10-12 USD) per capita income in rural areas in India amounting to Rs. 35000-40,000 (approx. 700 USD) for a family of five annually. For Kerala, this estimate is Rs. 775.3 (approx.13-14 dollars) per capita income for rural areas (on an aggregate and not specific to formal/informal work) amounting to Rs. 40,000-45,000 (approx. 750 USD) for a family of five annually (Planning Commission, Govt. of India, March, 2012 cited in The Hindu, March 20, 2012). According to the report, of National Commission for Enterprises in the Unorganized Sector, Government of India, August, 2007, 77% of Indians (that means 836 million people), lived on less than 20 rupees per day (USD 0.50 nominal, USD 2.0 in PPP) (NCEUS, August, 2007).

it is not always necessary that workers earn their entire income from coir industry alone. Workers often work one or two additional jobs (seasonal or part-time) other than coir to sustain in a year and during periods when coir work is irregular As seen in course of fieldwork, occasionally, a small proportion (7.3 percent and 1.5 percent) of household earn an income within a bracket of 30,000 to not more than 50,000 (1000 dollars) in a year (Coir Board Report, 2010). This small section that falls in the relatively higher income bracket may not be a typical coir household (where all members are engaged in coir work). Rather, it was typical that in such households, the female members are engaged in coir work and the male members (husbands and sons) may be employed in the service sector etc. and the entire household may diversify their income in a 'value added' coir finished good unit (as mentioned in Chapter 5) by employing wageworkers.

Fig 8.3. Annual Household Income of Coir Households in Kerala, 2010

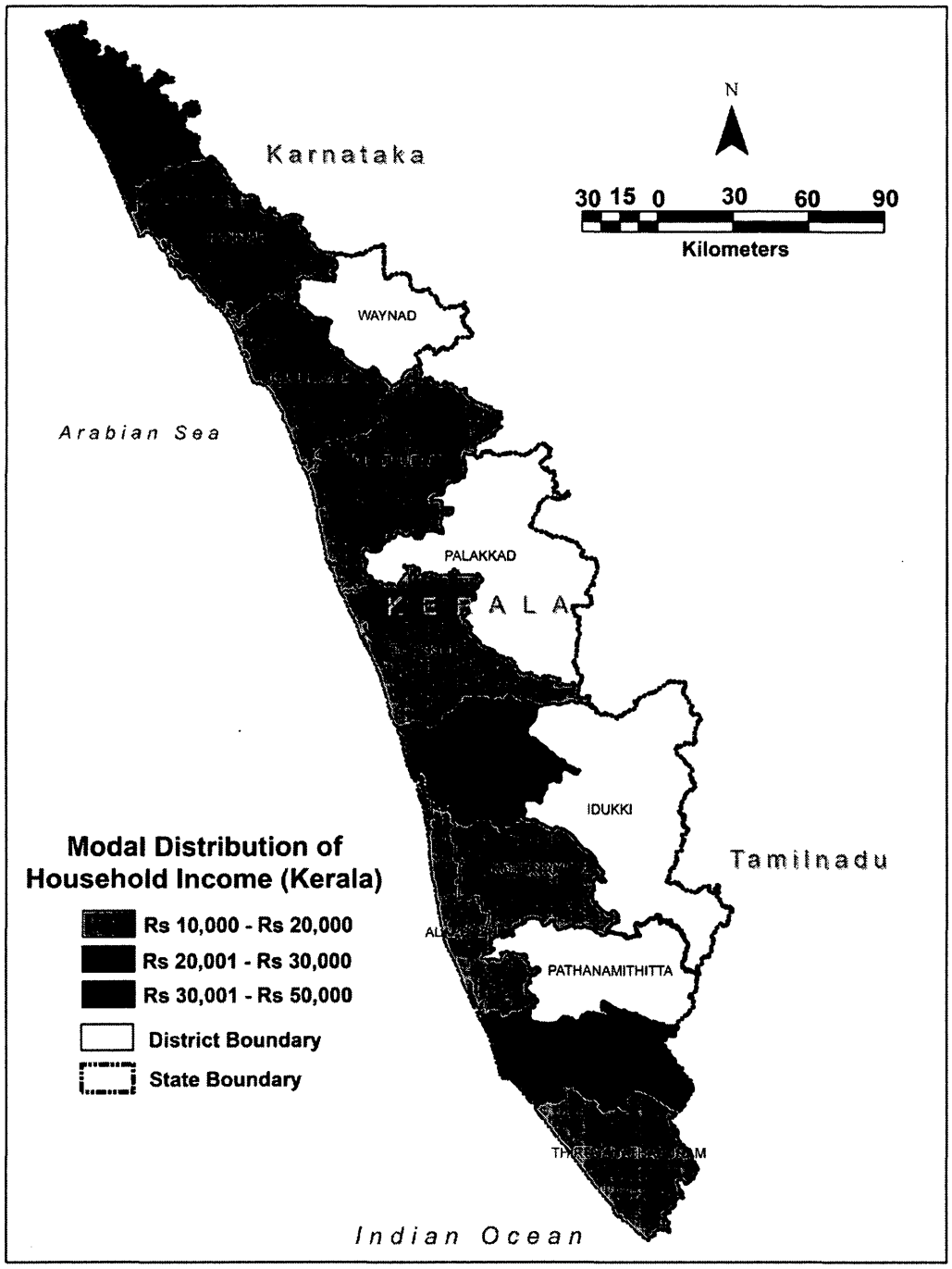


Source: Coir Board Report, 2010

The geographical distribution of income from coir is also uneven within and outside the coir belt.

Workers in Alappuzha, Ernakulam and Trivandrum districts (the main coir areas) earn relatively low levels of income from coir falling into an income bracket of Rs. 30,000 to Rs. 50, 000, per year with Rs 20,000 per year as an average. One of the factors contributing to this as mentioned earlier is the low mobility of workers (spinner and defiberers) -- due to residential preferences and low levels of skills -- into other sectors of employment with relatively better returns on wages. On the other hand, Ernakulam shows a relatively higher percentage of workers earning up to Rs. 30,000. This may be due to employment diversification of workers (generally workers have been seen to be employed in finished goods sector/weaving processes here) into other sectors (including urban activities) in Cochin city which is a major urban town in this district. However, for Alappuzha, income brackets are significantly low with most concentration of workers in the lowest income bracket of less than Rs. 10,000 (Coir Board Report, 2010).

Map 8.1: Modal Household Incomes in the Coir Industry in Districts of Kerala



The co-efficient of variation for income shows that there is less variation among the districts for annual household income in the highest bracket (6 percent for Rs. 50, 000 or more) compared to incomes in the lower brackets (78 percent for less than Rs.10,000-20,000; 68 percent for Rs. 20,000-30,000 and 25 percent for Rs. 25,000-50,000) (see Appendix 8.1). This in other words suggest that incomes are more equally distributed among workers earning lower wages against workers earning higher wages, which indicate that wages are generally low in the industry. As seen in field, income from the raw material sector in which the bulk of the small producers and workers are engaged in, as in the case of Alappuzha yields low returns due to depression of wages and employment insecurity. In areas outside these districts (including Kollam), as seen from fieldwork, workers necessarily do not rely on coir as the only source of income and household members diversify into the service sector in nearby urban conurbations.[262] This trend from the field also contradicts the normal assumption in the existing literature that rural nonagricultural activities have the potential to reduce rural to urban migration in search of jobs.

[262] These areas have been more diverse in terms of employment opportunities due to presence of other rural industries. For instance, the cashew and handloom textile industry is located in Kollam district, whereas Cochin and Trivandrum have multiple income opportunities due to their urban economies. Unlike in Alappuzha, coir is the main rural industrial income opportunity with the exception of the recent growth of the fishing industry. Also, workers in Alappuzha have been historically attached to coir work and find it difficult to diversify in other jobs due to lack of skills, place based attachments etc.

Another aspect to be considered here is whether remittances play a large role in incomes of coir households, as outmigration rates are generally higher in Kerala.[263] It was found in the course of fieldwork, that despite the fact that Kerala has a large outflow of migrants to different parts of the world, including the Middle East, the return from remittances is relatively higher for only those better off households that are relatively advantaged in terms of educational background or other forms of privileges (due to which workers are able to find relatively well paying jobs abroad). For such households in the coir industry, the remittance money is used for higher quality of life or education; it is occasionally used to purchase improved means of production[264].

> 'My husband left for the Middle-East [presently in Doha, Qatar] 15 years ago. He was initially working in Dubai in the construction sector but lost his job eventually. Now he is a casual construction worker. He sends us money, which is used up for our children's education and other household expenditures every month. When he can send us more money, we pay off past family loans or loans accruing to my small spinning units. I have bought a HP motorized (semi-mechanized) *ratt* recently to spin more yarn. Remittances are not always enough, although it is always good to have a steady source of income." – Interview with household based coirworker, location anonymous.

However, studies have pointed out in general[265] and in particular context in Kerala[266], that remittances do contribute to household consumption purposes. Most low-income earning households choose to save remittance money for meeting educational or marriage

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[263] By the early nineties remittances to the Kerala economy assumed a significant share of state income. This ranged from 17 percent during 1991-92 to 24 percent during 1997-98 with an average of 21 percent for the period 1991-92to 1999-00. Equally significantis the fact that a sizeable proportion of remittances is in the form of non-resident Indian (NRI) deposits in banks. For the nineties this worked to 27 percent of the total remittances (Kannan and Hari, 2002). See Zachariah, et al, 2001 for impact of remittances on Kerala's economy.

[264] Although remittances earned by low-income households are used to meet basic household or personal expenditures instead of investing in assets or property.

[265] Kelly (2010) points out that remmitances served as important source for increasing absolute household incomes in Phillipines, which are used for household consumption needs and some levels of asset generation (2010: 4)

[266] Kerala's modified per capita income (PMSI) caught up with that of the national average only in 1984-85 but reached 49 percent above the national average in 1999-00 (Kannan and Hari, 2002).

related costs of their children. They do invest in assets like land or machines etc., but such incidences are low. Most households (of small producers) choose to use remittances to pay off past debts in the household (around 74 percent of workers employed in self help groups and 55.6 percent small producers carry outstanding loans, CESE, 2008).

b) Employment relations and 'informality': Employment relations in the coir industry are largely informal in nature although a small section of the working population is employed in the formal sector.[267] Both processes in the coir industry -- raw material extraction and processing and the finished goods sector -- have different types of employment of both formal and informal nature. Formal contractual employment is established in the factory-based settings of the exporter-producers as well as the state aided enterprises and co-operatives. Informal employment on the other hand constitutes of workers employed in dispersed production units who do not have a legal contract with their employers. Informal units are generally outside the purview of legal regulations and are not legally registered/or licensed with the government. These units do not follow industrial regulations related to labor, employment or wage related laws. Employment of labor may range from full time to part time employment varying between different types of labor arrangements -- permanent and casual labor/seasonal labor as well as new forms of attached labor. Although government estimates suggest that 74.6 percent workers are full time workers and 25.4 percent part time workers of a total sample of 2500 workers in

[267] Compared with the number of co-ops and factories in the industry with approx. 20 Lakh workers in both the formal and informal sector.

the industry (Coir Board Report, 2010), there are important caveats regarding this. As seen in the field, full time employment is more a characteristic of the organized factories of the exporter-producers or the state run organizations. Here too, part time labor employment is the dominant form of most 'value addition/finishing' feeder units associated with the finished goods sector of the industry. However, workers employed in co-operatives or those small-scale producers who employ wage labor along with self-employment in their own units or self help groups, consider their employment status as 'full time' despite the fact that they sit idle for a significant time of the year. This is because for workers registered with a co-operative, employment status is formal, 'full time' and regular as per their contractual agreement. It is another matter whether this contract remains valid under actual conditions. On the other hand, self-employed own account workers 'consider' their employment status as 'full time' because by being self-employment they work full time in their respective units (even during times when work is not regular, they have to still ensure the functionality of their units). This gives an impression of consistent employment pattern in the industry as observed in the official estimates of the data mentioned above.

Informal work, casual employment and agreed wages are conditioned by the requirement of the different processes in the industry. The raw material extraction processes including activities of *retting* and defibering are done through seasonal labor arrangements as *retting* takes over eight months to be completed. So, workers are employed during the initial stage and the final stages based on daily wages on a casual

basis without any contractual agreements and wages mutually agreed upon. As mentioned already, landless agricultural workers generally fill up these positions to diversify their income options during slack agricultural seasons. On the other hand in the raw material processing (spinning) and basic finished goods (weaving) processes, which are largely household based, the small scale and struggling medium scale producers (excluding co-operatives) rely on family labor; although casual labor is hired occasionally to meet targeted output levels. But as mentioned earlier, the casual labor hired in these forms may not always be necessarily paid in wages but rather in kind in return for work done. Hiring of casual labor this way is done through kinship and family relations and in some cases, workers are attached through inter-generational debt bondage between families as well. It came to light in the field that in occasional cases, workers work on mutual or bonded agreements for middle or small producers to pay off debt or loans left behind by parents:

> "My father had left some debt with my distant uncle (owner of the unit) before he died. We are traditionally coir weavers. So, I help my uncle some days of the week. Rest of the days I work in the paddy fields or domestic work." – Interview with Weaver in Thuravoor, Alappuzha.

There are a few other ways in which informal, non-contractual relations operate. First, employers make use of indirect financial incentives or personal contacts to keep labor relations flexible. Exporter-producers also use financial incentives (other than subcontractors as mentioned earlier) to keep labor bonded and under their control. These are new forms of keeping labor tied or attached to a process or a place:

> "We sometime help our workers and their family in times of emergency. We extend loans and the return is not expected immediately. They can take their time. Also we do not expect monetary returns most of the time because if they had money they could have paid for their own expenses in

> the first place. So instead they work a little 'extra' for us. That may be their way of expressing gratitude. These are voluntary decisions. There is no pressure here." -- CEO of an export facility, location anonymous on request.

Second, the big exporter-producers make use of caste/family/kinship relations indirectly through intermediaries when it comes to controlling wages. Employers use piece rates as a form of discursive control that 'bundles the notions of 'social regulation' and 'self-regulation' into the concept of 'work governmentality'[268] (Gidwani, 2001: 74). Such practices are based on pre-constructed cultural notions of collective or self-understandings that inform everyday social interactions -- as social facts, which are again based on socially regulated meanings of internalizing how we conceive of the world around us. These forms of cultural practices then translate to the dynamics of the work place and the relation between the employer and the worker in terms of employment and wages (Gidwani, 2001:79). In the coir industry, the fact that employers and workers belong to the same caste group *(Ezhava)* in majority, allows for employers to engage in such discursive practices of work and wage implementation by generating a practice of 'self driven' wellbeing in the workers waged as for the common interest of their caste or community (as mentioned earlier in Chapter 5 on Social Relations of Production). Such discourses build in a sense of self-discipline on the part of the worker to be more productive without the need of supervision by employers. While workers are aware of the

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[268] "I use the term 'work governmentality' to denote, simultaneously, the structural management *of the* labour process (achieved by controlling access to income-generating assets or means of production) and internalized management of work practices *within* it by members of a group, whether affiliated on the basis of class, caste, race, or gender (the salience of particular units of analysis must remain an empirical question)"(Gidwani, 2001:74).

implications of piece meal wages are nevertheless trapped in the logic of 'self regulation' in scramble for earning that so-called 'extra' income which is hard to come by.

Third, intermediaries control labor markets and mediate labor relations based on differences between social categories like gender and caste. Subcontractors through which work is subcontracted out by the exporters belong to the same caste group as the workers. These subcontractors are also prominent personalities in the villages and may often be the village headman, co-operative leaders or local political leaders. Through use of personnel obligations like trust, respect and patriarchal patronages, workers are roped into informal work arrangements. Agents and subcontractors generally subcontract work through their own personal preferences. Most subcontractors may have family relations with the workers:

> "Ambakutty (name of the worker) is from my same village and she is like a sister and her mother is like my aunt. She works for me and helps me mobilize other workers when I need them. Her husband died very young. She has a daughter who goes to school and helps her mother sometime. I help them with finances whenever they need them and ensure they get their share of work. We work through mutual trust and respect." – Interview with a subcontracting agent who is otherwise a local party candidate and a Life Insurance dealer.

Fourth, landless/property-less workers seek personal contacts for work and social mobility. Social categories like caste/kinship/family/patriarchy as well as community based organizations play important role in this context. Workers comply with the conditions the subcontractors set forth for their own immediate interest, given competition is high and labor is surplus in reserve and for the sake of obligation. Workers remain forever indebted and dependent by choice or by force. Their personal

circumstances and hopes for social mobility leave them with very few choices. Most of these intermediaries by virtue of their political positions or contacts with powerful authorities are often influential figures in the village whom workers approach for bureaucratic or official (*sarkaari*) procedures:

> "Raaji Chettan (Uncle, name changed) is a very well known personality in our village. He was a freedom fighter and now our local *panchayat* (self government) president. He has also been the president of our co-operative society. He helped all of us with recommendations for obtaining loans to buy ¼ th HP motorized Ratt (spinning wheel) subsidized by the government You know how difficult it is to get through such things. Lot of paper works involved. We hardly understand all these things. We also get work through his contractors. He is a fatherly figure for all of us. We seek his advice for almost everything." – Interview with coir spinner in Alappuzha.

Small producers also depend on personal contacts for obtaining credit whether informal or formal. Since the formal credit processes (government loans and subsidies) are highly bureaucratic in nature, access to credit becomes a lot easier if some influential person in the village send recommendations on behalf of some small producers. Most workers (in case of self help groups) or small producers do not have anything to offer as collateral. Their work performances and personal contacts are the only way to obtain credit:

> "Our self-help group is financed by our community based-the *Shree Narayana Guru* trust. The trust [constituted of a locally elected body] mediates our credit formalities with local banks as well as contracts for work. We have been able to able to market our products efficiently through them and have been able to participate in coir exhibitions countrywide now." – Interview with president of a *Kudumbashree* (self help community) group.

Through the gambits of leadership and patriarchy these intermediaries propagate unequal class relations between the exporter-producers and other intermediate and working classes in the industry. Such tendencies leave the small producers and coir workers as well as some sections of the middle producers in utter distress:

> "The informal market and presence of middlemen has reduced us to hybrid identities-sometime coir worker, sometime construction worker, owners of small units, co-operative works etc. There

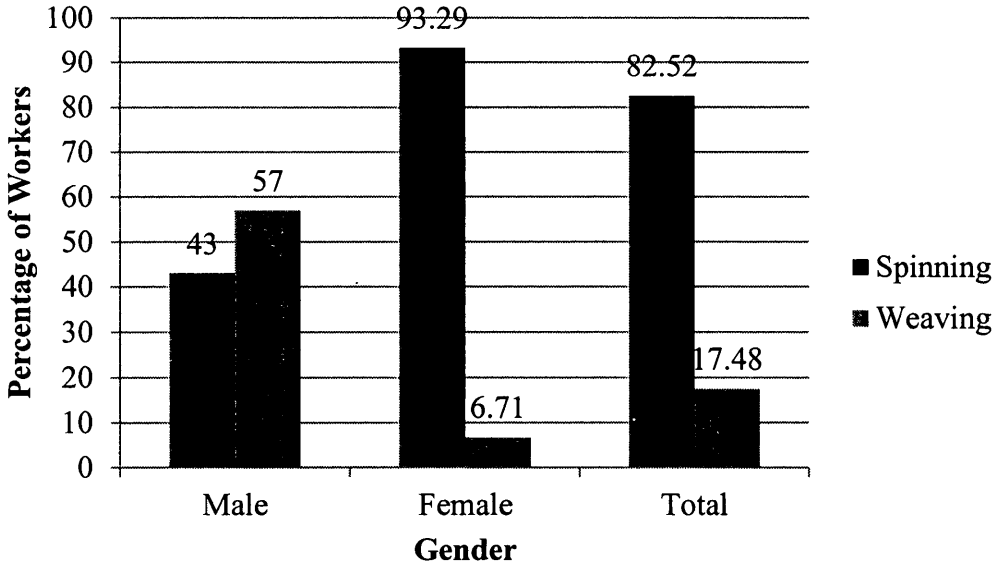
> is a lot of scramble and competition for available work. And the contractors capitalize on our vulnerabilities and insecurities." – Interview with household worker in Alappuzha.

Although rural nonagricultural activities like coir industry were considered relatively free from coercive labor relations that used to exist in the agricultural sector in the past and even at present times, labor relations are not significantly different from the agricultural sector anymore. The only difference here is that coercion has given way to consent where every action is voluntary and self-determined yet discursively controlled as mentioned above.

c) Gender and Caste Relations: Although coir work is an important alternative outside agriculture for socially marginalized groups like that of female or lower caste workers, employment and wages are discriminated on the basis of gender and caste differentiations. As mentioned earlier, female workers comprise a major share (80-85 percent) of the coir workforce and are particularly concentrated in the raw material extraction and processing sector (Coir Board, 2010). Coir spinning work being largely domestic in nature has been argued to provide female workers with additional income opportunities making them significant contributor to household incomes. However, a closer look at secondary data and fieldwork observations and interviews point out the gender disparities between male and female workers in the industry in terms of nature of jobs they are engaged in; in terms of skill requirements; employment; as well as wages. It has been seen that female workers are concentrated in the low skilled informal raw material extraction and processing sector, whereas male workers dominate the relatively

advanced factory oriented semi-skilled to skilled work in the finished goods sector (Fig 8.4). As seen from the figure below and as mentioned in Chapter 4, share of female workers to total workers are fairly low in the finished goods sector as weaving involves hard physical labor and has been traditionally performed by men. However, the 6.71 percentage of female workers in the finished goods processes are employed as semi-skilled or unskilled work in the value added finishing units associated with the big export factories.

Fig 8.4. Distribution of Workers by Gender in the Coir Industry, Kerala, 2010

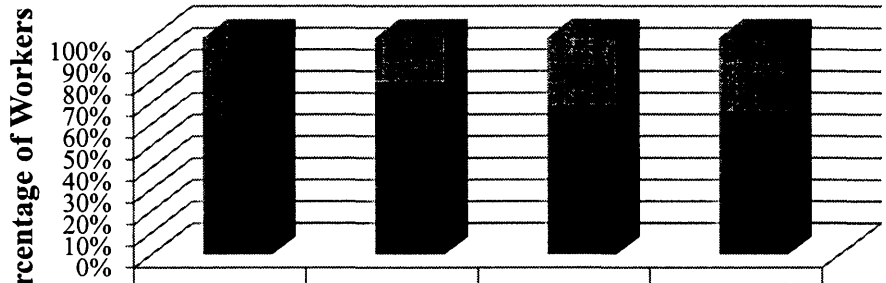


Source: KITCO for Coir Board, 2010

On the other hand, female workers are also concentrated largely in the unorganized sector (70.3 percent, Fig 8.5) compared to male workers who have a greater share in the organized government and private factory based processes. However, about two thirds of

the female workers are employed in the informal/unorganized sector. Employment in co-operatives is the only source of formal employment for female workers in the industry.

Fig 8.5 Percentage Distribution of Workers in the Different Sectors of the Coir Industry, Kerala, 2010



	Co-operative	Factory	Government	Unorganised
Total	25.8	5	0.5	68.7
Female	28.1	1.3	0.4	70.3
Male	17.2	18.5	0.7	63.6

Sectors

Source: Coir Board Report, 2010

In terms of days of employment, although female workers have a slightly higher number of employment days (17.7 percent employed for more than 250 days) in a year compared to male workers (15.3 percent employed for more than 250 days a year), this is also due to the fact that women workers are higher in percentages than male workers employed in the industry. Also, female workers are engaged largely in the household informal sector, where piece wages makes them devote a considerable number of days in a year to spinning or other associated work resulting in an overall increase in the number of working days in a year. This is also the reason why employers prefer female workers in

the spinning sector whereas employing male workers (despite the fact that employers have to be more aware of their trade unionism and collective resistance that female) is a necessity for specific works :

> "Because female workers cannot do physically laborious and straining work (like coir weaving) or operating a heavy handloom or powerloom, employers have no other resort than employing male workers in weaving or finished goods processing works. By doing so, they bear the small consequences [trade unionism, strikes etc] of employing a male workers from time to time." – Interview with retired Government Coir Project Officer, Punnapra, Alappuzha.

Just as in the case of employment, wage disparities are also gender biased. Whereas, the overall wages are low for the industry, female workers are paid even lesser than male workers (Rs. 32.97 per day averages for women against Rs. 77.28 per day for men)[269] (CSES, 2008). The discrimination of wages also corresponds to the skill level requirements. The established norm of paying more wages to men is justified on the grounds that they are employed in more skilled jobs like weaving and value additions against female workers who are generally considered unskilled or semi-skilled spinners (fieldwork observations). Geographical variations of gender-based employment in the industry are also clearly demarcated in the various districts of Kerala. Women workers are largely concentrated in raw material sectors (80-90 percent) in all the districts where coir work is concentrated except Alappuzha, Ernakulam and Thrissur (60 percent or less) (Coir Board, 2010). This is because as we already know the export houses as well as government factory sectors of the industry are located in Alappuzha and Ernakulam districts (which employs male over female workers) whereas Thrissur is not a

[269] This is just a sample estimate of averages for daily wage rates in place of piecemeal wages, which is the established norm.

predominantly coir-producing area, which indicates low female worker concentration here.

Employment, wages and the labor market in the coir industry are also differentiated and segmented on the basis of caste-based relations. As mentioned earlier, there are four major caste groups in the coir industry: the *Nairs* (upper caste groups), *Ezhava*s (a so-called backward caste group or OBCs[270] which is relatively a rank lower than the *Nairs*) and the *Pulaya/Parayas* (marginalized lowest caste groups). Nonagricultural work like coir work historically provided for freedom from social oppression for the marginalized population groups in the agricultural sector in Kerala. The *Ezhava* workforce in the industry was, historically landless agricultural laborers during the colonial period who found coir work as socially liberating against the oppressive caste conditions in agriculture. Over decades of struggle and toil, the *Ezahava* community could significantly establish their presence in the industry as small and medium scale employers and workers, while a significant section of them were able to own export-based industries.[271] This was also possible partly because of the large reserves of working population from this community in the rural countryside of Kerala in

[270] The census of India categorize workers based on their caste and religious backgrounds in groups like- General (upper caste Hindus); Other Backward Classes (OBC); Minorities (Muslims and Christians); Schedule Castes (SC) and Scheduled Tribes (SC) based on constitutional amendments and categorization of caste groups in India.

[271] This is based on field observations and existing literature. Caste based data is only available for aggregate figures of employment and non available for ownership etc.

general and partly because of the non-interest of the upper castes like *Nairs*[272] in coir work.

However, although coir work granted a degree of social freedom (from feudal and oppressive forms of social stratification[273] which was manifested in agricultural relations) for the *Ezahavas,* caste relations continued to be subjected to economic inequality, class polarization and segmentation in the labor market[274] (see Kannan, 1999). Employment and wages are now discriminated between the better off and pauperized groups of the same caste groups (as also seen in Chapter 4). On the other hand, the lowest caste groups in the caste hierarchy are still marginalized from the main workforce in the industry. While, the *Ezhava* community comprises of 81 percent of the total workforce in the industry, the *Pulayas and the Parayas* (lowest caste groups or the scheduled castes (SC) as categorized by the Census of India) comprise less than 10 percent of the total workforce (Coir Board Report, 2010). These marginalized caste groups are therefore a very small presence in the industry. Historically, these lowest caste groups have been the

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[272] Only 7.6 percent in a sample of 2500 observations in Coir Board Survey, 2010

[273] Jeffery (1976), quotes the wife of a Christian missionary, who wrote in 1860 that: "a Nair can approach but not touch a Namboodiri Brahmin: a Chovan [Ezhava] must remain thirty-six paces off, and a Pulayan slave ninety-six steps distant. A Chovan must remain twelve steps away from a Nair, and a Pulayan sixty-six steps off, and a Parayan some distance farther still. A Syrian Christian may touch a Nair (though this is not allowed in some parts of the country) but the latter may not eat with each other. Pulayans and Parayars, who are the lowest of all, can approach but not touch, much less may they eat with each other" (Jeffery, 1976:9-10 as cited in Heller, 1999).

[274] 'The traditional labour institutions under the caste system, with social stratification as its main distinguishing feature, gave way to the emergence of wage labour as a result of the commercialization of the economy. While caste identity remained as a segmenting force even in the emerging labour market, the process of expanding the sphere of wage employment continued... Caste initially provided a framework for protest movements aimed at the destruction of feudal domination in social and cultural spheres but caste did not prevent the process of class polarization and the emergence of class- based organizations such as trade unions' (Kannan, 1999: 144, 146).

most oppressed groups in the rural areas in India as well as in Kerala (Jeffrey, 2002; Rammohan, 2008). Nature of activities in the coir industry is also stratified based on caste-based differentiation. As seen in the course of fieldwork, the lower caste groups *(Pulayas* and *Parayas)* do not engage in spinning or weaving work, do not own self account enterprise like those of small or medium scale producers and are mostly concentrated in the fiber processing sector where they are hired as casual workers. The lower caste groups mostly work as wageworkers rather than owning property or self-account enterprises.[275] Employment for these groups is mostly part time or seasonal (the lowest caste groups are concentrated in fiber extraction sector which involves seasonal work as seen in Chapter 6). Occasionally a lower caste worker is also employed for miscellaneous[276] (or odd jobs) work in different production units. These groups have not been able to enter the spinning and weaving sector of the industry due to historical domination of the *Ezhava*s in this sector (see Mathew, 1985). Recent data also show that the share of share of *Ezahavas* and *Nairs* are also high in self-help enterprises: 21.8 percent of FC, 65 percent OBC, 7.8 percent SC; and private companies: 19.8 percent of FC, 76.8 percent of OBC, 3 percent of SC in the industry (CSES, 2008). This is ironic as the intent of the self-help group program was aimed at targeting the poorest and most marginalized communities in rural development policies of Kerala.

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[275] Coir work in generally was associated with lower castes groups and was considered socially derogatory for upper caste women in Kerala (See Mathew, 1985).

[276] Such as transportation of goods, construction of a workshed, standby page-boys etc.

Other than employment, wages in the industry also reflect the caste-based differences. Although caste based data on wages are not available, the concentration of the lowest caste groups in the defibering processes and the wages for this work can be used as a proxy to understand the differentials of wages among the caste groups. Wages, per the Labor Commisionerate of Kerala, 2012 is lowest for workers in the raw material extraction (husking, retting and defiberers). Decaying of husks (retting) and defibering are considered to be the unskilled or semi-skilled jobs in the industry and therefore correspond with the low wage rates (wage rate is at an average of Rs 20 per 100 husks decayed or de-fibered) (Coir Commissionorate, Kerala, 2012). The point worth noting amidst all this is that despite highlighting the plight of coir workers in general in government reports, newspapers and database in recent years, the caste based discrimination of work, employment and wages are hardly mentioned:

> "There are two reasons at least explain this trend: first, partly because these groups never came to dominate or represent the majority of workforce historically in the industry. They were mostly employed on a causal or informal basis. But also partly because of the fact that the negligible presence of these workers in formal employment or organized workforce in the larger sectors of the state's economy in general, do not allow them to be vocal and active groups [despite efforts at organizing resistances] in the general class struggles that characterize the industry." -- Interview with a researcher, Trivandrum

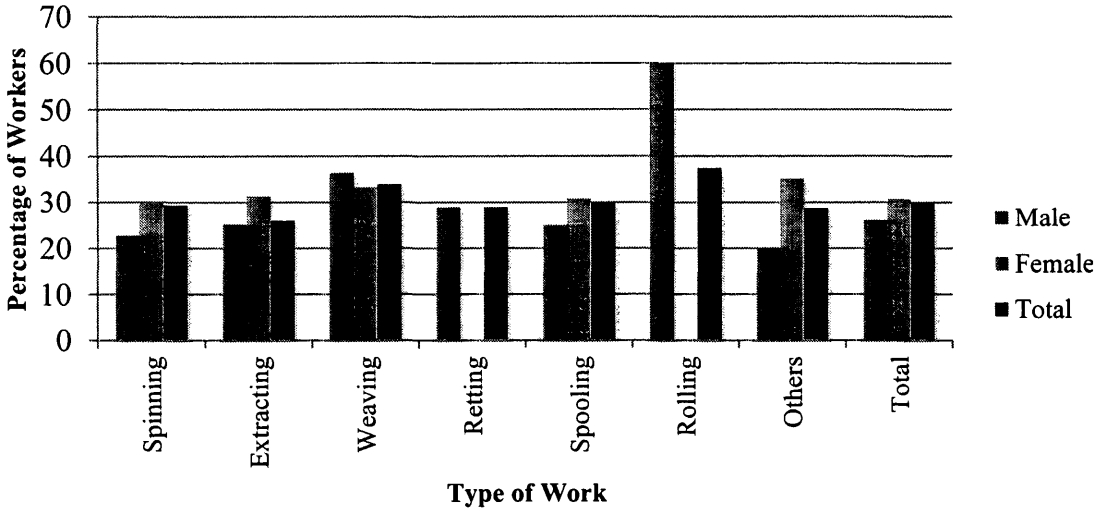
d) Physical Wellbeing of Workers: One area that has been largely overlooked in the literature on the development implications of the rural nonagricultural sector is the impact of work on laboring bodies. Coir work is extremely strenuous (for both male and female workers) and has significant implications on worker's health. Workers are subjected to acute hardship and physical strain on a daily basis. The piecemeal wages and

the tendency to maximize the potential of income generation for small producers and property-less workers have indirect impact on the length of the working day, producing adverse effects on physical health. Also, workers work multiple jobs other than coir work to support household incomes that adds to their physical burden.

Male coir weavers in the finished goods sector do extremely strenuous work of weaving coir mats and mattings in standing positions for 8 to 10 hours a day. Coir handlooms are very large and require workers to stomp on the paddle consistently for long hours to weave yards of long mattings. Most male workers are very thin, with ribs showing in their bare bodies and with deformed hands and legs due to work conditions. Male workers also risk health conditions while performing decomposition (*retting*) work, which requires standing in water filled ponds for prolonged periods. Thus the nature of work and prolonged working hours gets inscribed in their bodies.

While coir work adds to physical deformities in man, female coir workers are exposed to greater work related (occupational) medical health problems. As seen in Fig 7.9, female workers face more health related illness than man in the industry. Recent statistics show that acute forms of arthritis and other related pain in body pain (about 72 percent workers reported body pain) as well as acute allergy from the dust accumulated from coir work which have impact on respiratory functioning (about 28 percent workers reported dust allergy) are the most common ailments among female coir workers in the industry (CSES, 2008). As seen during fieldwork, female workers also reported health issues like asthma, chest pain and bronchitis.

Fig 8.6. Percentage of Workers Reporting Job Related Health Conditions by Type of Work in the Coir Industry, Kerala, 2010



Source: KITCO for Coir Board, 2010

The impacts of ill- health are many:

> "Being ill or sick due to work from time to time due is a common problem for coir workers. Squatting for long hours or carrying bundles of heavy spun yarn as we spin as well as working outside in the yarn in the heat [Kerala has extremely warm tropical weather most time of the year] or rain leads to so many health complications. If we are sick, working days are lost and that is more a concern for us than the employers. He [the employer/subcontractor] will find other workers ready to work for him. But for us, not working means loss of wages and if it continues for days than starvation awaits for the entire family. Also, you cannot seek other work [other than coir] if you are sick anyway." -- Interview with a Weaver in Muhamma Village, Alappuzha

> "My mother from the time has hand/body pain is now increasingly unable to complete her daily share of work by herself. So, I help her sometimes and so does my daughter. This then impacts my own share of work. Overall, we end up being paid for the work of only one person done by three." – Interview with small producer/co-operative worker at Pathirapally, Alappuzha

As seen in the field, employers on the other hand seek physically fit workers for the sake of productivity and also for the fact that they do not have to lose person-days of work due to issues of an ailing worker (Based on fieldwork excerpts). The growth of the new consumer- oriented value added sector requires workers to work with hazardous chemicals and bleaches (Fieldwork observations). Factory workers are exposed to

hazardous chemicals and dyes as part of value addition works. They undergo physical wear due to long working hours. Employers (the exporter-manufacturers) do compensate from time to time by taking care of medical expenses for the workers and their families, which are additional incentives over regular wages. This kind of support then becomes obligatory pressure of ties and bondage between the worker and the employer as mentioned before. The employer gets away with slack standards of occupational safety in factories and informal units. With very less income resources to spend on health and medical issues, coir workers are largely dependent on government health care facilities than private facilities. With the decreasing possibility of accessing public health care facilities due to growing privatization of health care in general in Kerala, many workers are left ailing without reporting illness or seeking medical care. Health conditions are also unreported most of the time due to the fear of losing work opportunities under competitive situations.

The development implications in the coir industry bear directly on the social reproduction of the working class. The ability to earn a subsistence living income is often limited due to the nature of informality and irregularity of work in the industry; pressure on physical wellbeing in the process of maximizing the means of reproduction; as well as the discrimination of wages and employment through the gender and caste based segmentation of the labor market.

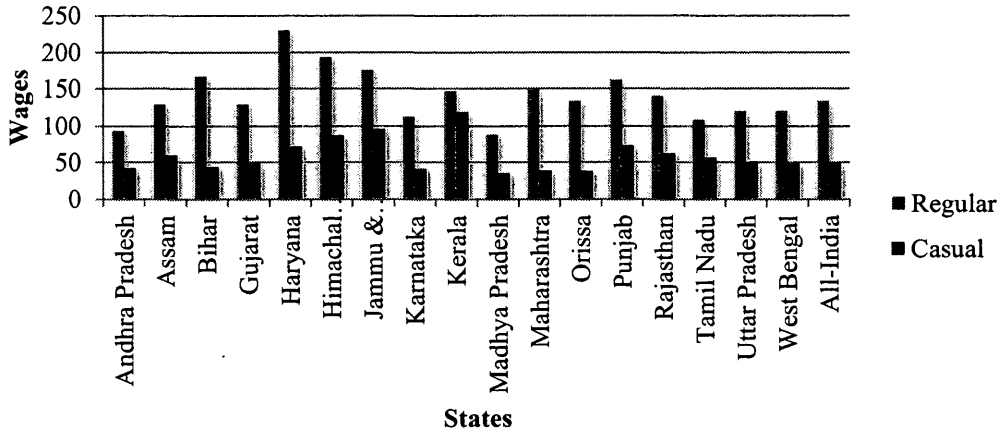
8.5. Impact of Class Struggles on Development Implications:

Working class struggle had played an instrumental role in bringing qualitative social and economic changes in conditions of work and worker's welfare in general in the coir industry. Working class movements in the coir industry were organized as early as in 1920s initially as anti-colonial movements (in tune with India's movement for independence up until 1947) but also against colonial capital and exploitative work conditions in the British coir factories. Although starting off as discrete rural or urban-based independent struggles aimed at resolving specific issues under specific work conditions, the worker's movement in the coir industry branched out to other sectors of the economy including the agricultural sector in the postcolonial period of the 1950s transforming into a most widespread, active and dominant worker's struggle in the 1970s (Isaac, 1983; Jeffrey, 1984; Heller, 1999). Some of the implications of such efforts were heightened protection of worker's rights, employment and wages in the industry, significant state intervention (particularly under the communist regimes) through minimum wage legislations and institutionalization of trade unions and the formation of worker's co-operatives between 1970s and 1990s (Jeffery, 1984; Isaac, 1990, Raveendran, 1992). Workers' struggle also formed formidable barriers against the mechanization drive in the industry due to the threat of mass scale technology induced

unemployment until mutually negotiated agreements between capital and labor were reached in recent years (Heller, 1996).[277]

The efforts of past working class struggles are reflected in the fact that despite wages being low in the industry, workers were able to maintain a minimum standard of living and decent quality of lives as compared to many other workers in similar conditions in other parts of India (Fig 8.7.):

Fig. 8.7. Average Regular and Casual Wages in Rural Areas in Major States in India, 2004-05



Source: ILO, 2008.

State welfare programs and public distribution programs have been very strong in Kerala and has been the outcome of vigorous worker's struggle for state action since the 1950s (Human Development Report, Kerala, 2005). About 97 percent of coir workers own their own houses, 65 percent have access to safe publicly facilitated drinking water, 70.8

[277] Although Heller talks about labor in Kerala in general here, this applies to the coir industry as well as observed during fieldwork.

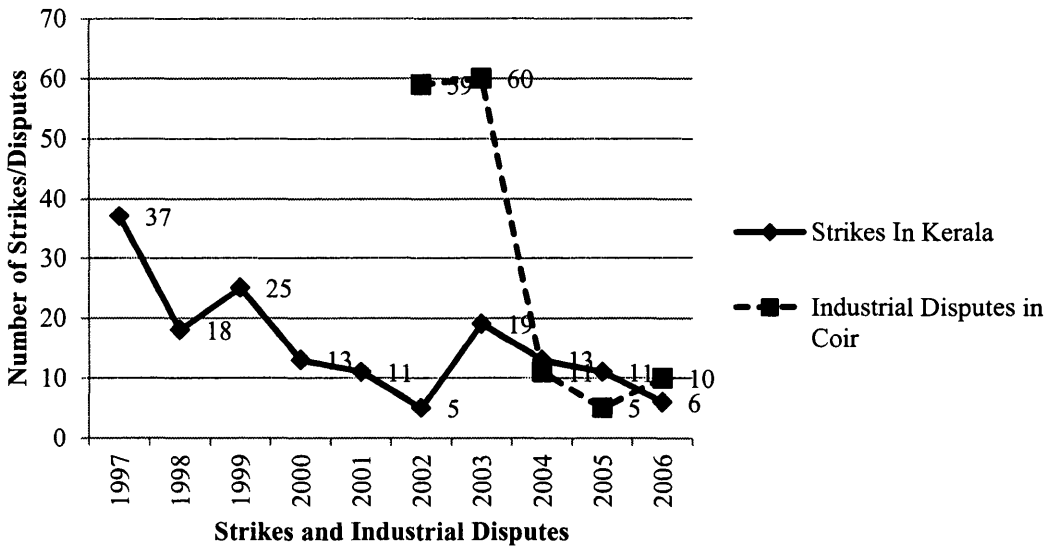
percent live in fairly sanitized living conditions and have fairly decent assets and amenities (92 percent have electric connection) (CSES, 2008). Although most workers have multiple sources of income other than income from coir, it should be pointed out that the state in Kerala has played an instrumental role in providing welfare provisions, financial support and subsidies to the working class in general and coir industry in particular. And it is workers' resistances, whether small or large- scaled that has been instrumental in garnering continued support from the state. Although, trade union based worker's movements in the industry have significantly waned under the pressure of neoliberal forces in recent time, class struggles still impose considerable pressure on employers from time to time. Two factory strikes were witnessed in the course of the fieldwork:

> "Although our strikes are small scaled now than it was three four decades back, we are still able to bring our employer to the bargaining table most of the time. These strikes are the only hopes of pushing up existing worker's wages or protecting occupational rights. Due to our trade unionism we were able to negotiate worker's compensation for mechanization in the big factories as well protect large-scale retrenchment of workers to a great extent." – Interview with union leader in a factory at Cherthala, Alappuzha.

Trade unionism in general in the coir industry however, has significantly reduced in recent years, reflecting a larger trend in the state (Fig 8.9).[278]

[278] Only 10 years of data on strikes in Kerala is accessible. Also, data on coir industry was collected in printable format m 2001-06.

Fig. 8.9. Number of Strikes and Industrial Disputes in Kerala and the Coir Industry, 1997-2006



Source: a) www.indiastats.com b) Labour Statistics at a Glance, Kerala, 2006, Government of Kerala.

One fundamental question that has been characteristic of the industry for a long time now that trade union leaders did not have answer to was -- why are wages in the coir industry so low, when trade unionism has been so active in the industry? A reflection of the historical trajectory of the coir industry brings us to the very heart of the contradictions inherent in the capitalist mode of production. Productivity gains in a capitalist production process, as Marx pointed out, have implications for employment and wages in the long run. In his general theory of accumulation, Marx says that when the accumulation process is in its expanding phase, there is a rise in demand for labor (employment) with corresponding rise in the price of labor power (wages) (Marx, 1867:

762-771).[279] Whether due to initial investments on the part of the capitalists to expand their enterprises or due to market demand for the products or due to capitalist competition, capitalists invest a part of the surplus value extracted from labor into expanded reproduction of capital. This involves investment into raw material or technology, which now requires additional labor for production. As Marx said: "growth of capital implies growth of its variable constituent, in other words, the part invested in labor-power" (1867:763). This increased demand for labor leads to increase in wages in proportion to the surplus labor extracted from them (769).[280] This, as seen in the coir industry, was characteristic of the later colonial period (1920s) up until the late 1960s, which has been described as the 'golden age of coir' (see Isaac, 1983). Demand for labor was high during this period (due to the boom is fiber trade in the 1920s) and therefore corresponding wages were relatively higher that led to the movement of the labor force from agriculture to non-agricultural occupations in rural spaces (see Heller, 1999).

Marx also points out -- the demand for labor and corresponding price of labor will only rise so long as the needs for accumulation are met. However, a point is reached when increase in wages come into conflict with the accumulation process because higher

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[279] See Marx, 1867,Chapter 25: The General Law of Capitalist Accumulation, Section 1: The Increased Demand for labour power that Accompanies Accumulation, the Composition of Capital Remaining the same: 762-771.

[280] "A larger part of the worker's own surplus product, which is always increasing and is continually being transformed into additional capital, comes back to them in the shape of means of payment, so that they can extend ...A rise in the price of labor as a consequence of the accumulation of capital, only means in fact that the length and weight of the golden chain the wage laborer has already forged for himself allow it to be loosened somewhat". Marx, 1867: 769).

wages reduces the rate of surplus value extracted (Marx, 1867:770).[281] Also, with expansion of capitalist processes, the ratio of technology to labor increases, which means that technology aided processes now increasingly displace labor. And with fall in the demand for labor, unemployment rises and wages are depressed. This then puts pressure on the social reproduction of the working class.[282] Thus, capitalist contradictions remove the very barrier (wage increase), which it creates temporarily.[283] In the coir industry and in Kerala in general, the hike in labor wages and trade unionism met a breaking point in the 1970s and thereafter, where employers could no longer sustain under heightened labor costs brought about by state supported labor struggles. This resulted in the effort to introduce the mechanization (or technological) process in the industry since the 1970s, which was opposed by vigorous labor struggles.[284] However, trade union led class struggles could not be sustained due to the threat of increasing unemployment (as mentioned in the quote above) and more increasingly so since the 1980s.

A host of other factors contributed to the fall in wages and unemployment and imposed challenges to trade unionized labor struggles in the coir industry in recent times. First, the initial phase of high labor demand that capitalist production in the coir industry between 1920s and 1950s increased the amount of surplus labor or as Marx says the reserve army of labor over time. This in turn aggravated the condition of unemployment

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[281] "...accumulation slackens as a result of the rise in the price of labor, because the stimulus of gain in blunted. The rate of accumulation lessens; but this means that the primary cause of that lessening vanishes, i.e. the disproportion between capital and exploitable labor power". (Marx, 1867:770).
[282] Marx, K. (1967),. "Chapter 25: The Badly Paid Strata", Capital Vol. I: 808:818.
[283] Das, R. (2012), 'Marxist Geography, Capital Accumulation and Class Struggle', Paper Presented at the AAG Conference, Los Angeles, 2012.
[284] Cf. See Kannan, 1999; Isaac, 1982, 1990.

and underemployment in the industry in the post-colonial period due to competition between workers for available work under volatile market conditions. Second, fluctuating trends in the global market since the 1970s[285] means periodic intervals of low demand for coir products in the buying countries. Low demands for coir means rising unemployment in the labor market and consequent downward pressure on wages, and growing incidences of precarious informal work practices. Under such circumstances, employers resorting to flexible labor practices and use of technology (mechanization in the case of coir industry) weakens worker's struggle for their rights or collective bargaining of trade unions. As studies have pointed out such recent development have led trade unions to enter into 'voluntary recognition agreements' (Albo, 2009:123) in the context of advanced capitalist countries) or 'social consensus project'[286] in the case of the coir industry (Heller, 1995: 660). Such agreements allow greater leverage to employers to control workers while for workers and their trade unions this is a massive compromise of their rights and past achievements in collective bargaining. Third, macro-economic policies (neoliberalism) to counter capitalist crisis set in new forms of regulations:

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[285] By 2008, economic growth in the advanced capitalist countries stalled by 1 percent on an annual basis. Such economic slowdowns mean that consumption sensitive sectors (including retail) are suffering sharp declines in activity (Albo, 2009: 120).

[286] 'Coir production, which employs roughly half a million workers in the treatment, spinning and weaving of coconut fiber, is a case in point. Unions have historically opposed mechanization and supported price controls on the supply of coconut husk from which the coir fiber is extracted. In the face of increasing competition from Tamil Nadu and Sri Lanka, the unions, coir manufacturers and the state recently agreed to an ambitious restructuring plan involving mechanization, price de-regulation, extension of the co-operative sector and job retraining. The plan's principal architect has described it as a 'social consensus project'. The accord rests on an explicit compromise: in exchange for their support of mechanization the unions have been guaranteed a degree of control over the modernization process (through the role of cooperative societies) and state organized schemes to minimize the anticipated labor displacement' (Heller, 1995: 660).

withdrawal of the state from social spending and support to working class movements; reduction of jobs in the public sector; and heightened competition between workers for work and wages to the advantage of employers (Albo, 2009). Trade unions in the coir industry point out that it has been difficult to organize workers in the industry in recent times. The availability of work being affected with changing trends in global markets, the vulnerability of the average worker in the coir industry has increased. Flexible work regimes and informal working conditions put pressure on sustaining employment over long periods of time. As a result, workers are more concerned about their own immediate concerns, rather than organize for the collective interests of the working class:

> "Workers are no longer united as under one trade union. How can they collectively organize when they are continuously competing with each other for work for wages. Also trade unions are divided based on political affiliations. They have their own competing agenda. Workers bargain for their own individual rights and wages but not collectively as a trade union anymore." -- Interview with Union leader in a co-operative society in Thumpally Taluk, Alappuzha.

Trade unionism has also been argued to limit the scope of private capitalist investments in Kerala reflecting in the slow industrial growth of the state over the years. This has also been one of the offensive against the welfare orientation of the Kerala state prior to neoliberal reforms, which considers the state to be responsible for active trade unionism in Kerala in the past. The transformation of the state in the current neoliberal era with withdrawal in its support for working class movements, has also limited the scope of working class struggles in Kerala:

> "While working class struggles have been able to protect worker's rights in the past, this was largely possible due to the efforts of the state. Now, with economic liberalization, the state is no longer in a position to solely support trade unions and worker's rights. If the economy is not doing

> well, then there is no point in organizing for wage hike if employment is irregular and workers have to sit idle. Rather unions now enter into mutual agreements with employers in the best possible interests for both parties." --Interview with Ex-Coir Officer in Thondankulangara, Alappuzha.

Some of these factors have imposed pressure on existing trade union movements (across all industries including coir), wherein unions are giving into compromises to allow flexibility of work to employers (see Heller, 1995,1999; Albo, in the American context, 2009). The implications of class struggle on worker's development in the coir industry and its significant decline in recent times have to be contextualized in the contradictions inherent in the law of capitalist accumulation in different periods of time.

8.6. Conclusion:

This chapter examined the development implications of the coir industry in terms of the nature and forms of employment and wages for the working class. An examination of the employment patterns in the industry revealed that incidences of unemployment are higher for the raw material sector compared to the advanced finished goods sector of the industry; employment is irregular; and there are a significant amount of underemployment and large-scale informal employment. Instability in the global markets in recent times, intermittent periods of rise and fall in the volume of exports and recent mechanization processes have led to unemployment, irregular employment and gross under-employment in the coir industry. The presence of a surplus labor reserve also contributes to large-scale underemployment and competition among workers for available work. Employment patterns are uneven between the two sectors of the industry

-- formal in the finished goods sector and informal in the raw material extraction sector. Employment in the formal and the informal sector is also geographically uneven across the coir belt and outside it.

Wages in the coir industry have been historically low and limited in nature. Wages are mainly paid in cash but also in kind under certain circumstances. There are two main forms of wages -- time wages and piece-rate wages, the latter being the more dominant form in the industry. Drawing insights from Marx (1867) and the work of Marxist geographer, Gidwani (2001), it was analyzed that while time wages intensify the form of exploitation relation between the worker and the employer by lengthening the working day, piece-rate wages are a more intensified form of time wages and perpetrate relations of exploitation and social oppression. Employers resort to piece-rate wages in the coir industry to increase productivity per worker and lower the cost of supervision in the production process. But also, this form of wages by imposing self-discipline and efficiency in the worker augments the process of surplus extraction for employers, both in its absolute and relative forms. More importantly piece-rate wages aid the process of labor control on the part of the employer by keeping the workers divided and worker's collective resistances at bay.

Employment and wages impact social indicators of development. The first social indicator -- household incomes in the coir industry are limited in nature and uneven across the sectors of the industry. Incomes are also uneven between households, which are entirely dependent on the coir industry (lower income for households mostly engaged

in the raw material sector) and households that are engaged in different occupations outside coir (relatively higher income for households engaged in the finished goods sector). Remittances also play an important role in consumption related activities for coir households. The second social indicator -- employment relations in the coir industry are largely informal in nature. Informality in work arrangements and conditions of labor are conditioned by the requirement of the different processes in the industry. Gidwani (2001) has pointed out how employers use discursive practices to induce 'work governmentality' by combining the principles of social regulation and self-regulation through piece-rate wages. Employers make use of indirect financial incentives or personal contacts to keep labor relations flexible. The big exporter-producers in the coir industry make use of caste/family/kinship relations through discursive practices indirectly to control worker's wages. Intermediaries also control labor markets and mediate labor relations based on differences between social categories like gender and caste. Landless/property-less workers on the other hand also seek personal contacts for availing work and for their social mobility. The third social indicator -- wages, employment and conditions of labor in the coir industry are also differentiated on the basis of gender and caste relations. Class and non-class relations are intertwined to depress wages of workers, segment the labor market and workers and maintain informality and flexibility of employment in the coir industry. The fourth social indicator --physical wellbeing of workers is directly related to the length of the working day and the strenuous nature of coir work. Health issues are medical in nature for female workers while they contribute to physical deformities in

male workers. Health issues increase the vulnerability and employment insecurities in workers.

The growing vulnerability of employment and wages for workers in the coir industry in recent years has been situated in the context of the contradictions of the capitalist production process in the coir industry. Marx's general law of capital accumulation explains that inconsistencies and contradictions inherent in the capitalist mode of production conditions unemployment and wages in the process of capitalist accumulation. Based on this law, it is explained thus -- the initial period of the evolution of the coir industry and its expansion in the 1920s due to rise in global demand for coir, raised demand for workers. However, with the downward demand for coir products globally in the postcolonial era until the 1970s and fluctuating global markets ever since, intensifying with the 1990's neoliberal reforms, demand for labor has slackened. Employers have over the years resorted to depressing wages and cutting down labor costs to remain competitive within their respective profit margins. Such practices have put downward pressure on worker's employment, wage and work conditions and increased the over all vulnerability of the worker in his/her effort to earn a living wage. The inconsistencies of the capitalist production system and resultant vulnerabilities of the working class is also therefore reflected in the decline of trade unionism and working class struggle in the coir industry in recent years. While working class struggles in the form of trade unionism have been instrumental in worker's welfare in the coir industry despite wages being low; workers' struggles have faced crisis of sustainability in more

recent times. Few related factors have contributed additionally to the decline in trade unionism in recent years: first, a growing reserve of surplus labor in the coir industry in the post colonial period have heightened the competition between workers for available work given the fact that market is unstable and work is irregular. Struggle for a living wage becomes an immediate concern for workers, which comes in the way of collective organization for larger class interests. Second, instabilities in global market and periodic episodes of low demand for coir make employers resort to flexible labor practices as mentioned above. Employers have also started implementing technological change, both as a means to increase productivity of labor as well as a strategy to control labor at the point of production as well as their struggles for better wages and work conditions. Third, deregulation of the industry since the 1990s and the resultant withdrawal of the state from social protection of workers and support to trade unionism has weakened worker's struggle considerably. The increasing threats of unemployment has led to -- as what many studies have pointed out -- 'voluntary mutual agreements' between employers and trade unions, in favor of flexible labor regimes and private capitalist projects. The cumulative impact of such tendencies are reflected in the nature of employment and wages and their impact on social development of the working class in the coir industry.

Chapter IX: Conclusion

9.1. Introduction:

This chapter concludes and summarizes the main empirical findings of the current research. The second section of this chapter begins by re-visiting the main research themes and questions that the dissertation sought to research. The third section is based on a detailed summary of the main research findings of each chapter. The fourth section shows the connections and contributions of the research findings to the existing body of literature on the geographically informed political economy of development in general and on the rural nonagricultural/nonfarm sector in particular. The concluding section points out some of the limitations of this research and provides recommendations for future research.

9.2. Research Themes, Objective and Questions for this Research:

The problematic of the current research is: how relations of exchange including those of capitalism, develop in the nonfarm sector in India, outside of agriculture but within rural areas, mediated by state policies leading to uneven developmental outcomes. I examine this research thesis in the context of the coir industry in Kerala, India. This research has had four specific objectives. The first objective is to understand the nature of social relations of production in the rural nonagricultural sector (in the context of the coir industry). Some of the research questions I consider are: How have classes evolved historically and spatially in the rural nonagricultural sector? What are the different classes

and what is the nature of the class relations the relations of exploitation between classes, relations of capitalist competition and the internal relationship between fragments of the same class -- in the RNFS? How do employers control labor in the RNFS? How are class relations related to non-class relations in the RNFS? How are social relations spatially organized in the RNFS?

The second objective is to examine the development of productive forces in the RNFS (in the context of the coir industry). The specific research themes I address here are: What is the nature of the means of production and the types of labor used in the RNFS? How are the productive forces spatially organized in the RNFS? To what extent have productive forces developed in the RNFS in the context of the coir industry? What are the factors enabling or constraining the development of the productive forces in the coir industry?

The third objective is to study the role of the state in the development of the RNFS. Various aspects of this objective include: What is the historical and geographical nature of state policies for the RNFS in India? What are the factors that influence the formulation of specific state policies for the RNFS and their specific (socially-spatially uneven) outcomes?

The last objective is to examine the development implications of the rural nonfarm sector in the context of the coir industry. The specific research questions I consider under this are: What is the extent of employment and unemployment understood as an outcome of the development of the productive forces in the RNFS? What are the

forms and types of wages in the RNFS (coir industry)? What are the implications of employment and wages on social development – understood as differences in income, employment relations, physical wellbeing and gender-caste relations – in the RNFS? What are the factors that contribute to the social and spatial unevenness of the development implications in the RNFS?

My research is based on four important building block (concepts) which are broadly drawn from political economy and social theory: productive forces; property or production relations (including relations of intra-class competition); 'non-class relations'; and the capitalist state. In the conceptual framework that drives the empirical research, these building blocks are inter-related; they are also connected to workers' social-economic development. In this conceptual framework, capitalist development in the RNFS is seen as a historical-geographical process, which is subjected to change over time with varied outcomes across space. This framework situates class relations as the central determining causal factor that influences specific economic processes (capitalist development of RNFS) within capitalism. Class relations influence the extent to which development of productive forces in a capitalist process (RNFS). The state plays an important role in the capitalist development of the RNFS, which is reflected in its specific policies. Class based relations of production in conjunction with non-class relations, which are taken very seriously in my thinking, and as they are mediated by the state, lead to uneven social and spatial outcomes of the RNFS.

I examine the capitalist development of the RNFS in the context of the coir industry in Kerala, India. I pursue a combination of an intensive as well as an extensive research design to conduct my fieldwork in four districts (provinces), which I consider the coir belt in Kerala. My research is based primarily on a qualitative analysis of data acquired from the field (in the form of interviews and observations) based on the conceptual framework mentioned above. However I also provide a basic form of quantitative analysis through representation of secondary statistical data as and when possible.

9.3. Research Findings:

The dissertation's central thesis revolves around the class character of the rural non-agricultural activity and developmental outcomes for workers. Each of the empirical chapters, in turn, has a central thesis, which represents one aspect of the central thesis of the dissertation as a whole. Each chapter's central thesis is elaborated on in terms of several sub-theses. In other words: the sub-theses of each chapter form the central thesis of each chapter, and the central theses of the different chapters produce the central thesis of the dissertation, which I imagine as a dialectical whole. The findings of the dissertation are discussed below around the main building blocks referred to above.

a) Social Relations of Production in the Coir Industry:

Class based social relations of production in the coir industry has been historically and spatially produced. Social relations of production in the coir industry are situated in

the context of surplus extraction and processes of capital accumulation.

Class relations have unfolded very differently over time, in the rural and urban contexts, and in the two sectors (the raw material and the finished goods sector) of the Coir industry. British colonialism in Kerala led to the emergence of specific relations of production (through colonial production processes) as well as relations of exchange (through trade relations) in the coir industry. Colonialism therefore initiated the economic subordination of labor under capital in the coir production process, and established a capitalist market for goods. Production in the coir industry is dominated by its capitalist form, although relations of exchange other than those that are characterized by capital-labor relations do exist. Relations to property and labor power are expressed in a variety of place-specific forms. Among the main classes in the industry, the big capitalist class operates from peri-urban and urban locations but have much control over the production and exchange relations in the coir production process. In other words, the urban sector of the coir industry is an extension of the coir industry, which is otherwise dominantly based in rural areas. The big capitalist class owns export-oriented factories and other than employing hired labor, they also subcontract the bulk processing work to the rural component of the industry. The medium scale propertied employers, based in rural areas, form the other arm of the capitalist class. They obtain work contracts from the big capitalists and employ workers who own partial (small producers of yarn) or no means of production (workers in general). An 'intermediate' class – operating in the form of subcontractors, dealers/traders, moneylenders – mediates the relations between the

different classes, both in the rural and urban sectors of the coir industry.

The coir industry is controlled by private capital of various types: global capital, domestic capitalists (mostly urban) and medium scale propertied employers (based in rural areas). Capital-labor relations also characterize subsectors of coir industry where 'non-private capital' rules: the cooperatives and state-managed enterprises. The export orientation of the industry means that the production process is tied to global markets and is dependent on the global demand for coir. While the large capitalist exporter-producers can invest substantially in inputs and technological processes in their establishments through partial aids for foreign capital, a large number of medium scale propertied employers (including the state enterprises) hiring wage labor have to ensure that wages are kept low in order to maximize their profits, stay in business and remain competitive.

At the other end of the class spectrum, a large section of the working population in the coir industry is connected to the capitalist system of production through the realm of exchange. The working population is either 'self-employed' or is hired by propertied employers for a wage. Employers hire workers at very low costs. The semi-proletariat small producers and workers are dependent on the employing class and intermediate traders for work and wages. Workers have to compete with each other for available work due to an ever-growing surplus of labor reserves in both rural and urban areas and within and outside Kerala. This is a surplus of labor, which the development of RNFS has not done much to shrink. It is not only that workers compete with one another for a limited pool of temporary work; they are also politically disorganized/unorganized; although

Kerala is known for political organization of workers, in more recent times, the level of organization has been in decline.

Workers are potentially rebellious, given the high level of exploitation and social oppression in this caste-ridden society of Kerala where many areas are dominated by cultural values of a landlord class. So, employers use different strategies – including use of caste and gender relations and relations of space -- to keep workers docile and vulnerable. Initially, colonial capitalists resorted to geographical decentralization of the factory system of production to counter the first wave of worker's resistance in the industry in the 1940s. This set in motion a disintegrated structure of production in the industry. Disintegration of the production structure into independent household-based production led to development of informal conditions of employment and wages and increased the vulnerabilities of the workers. In more recent times also this geographical strategy is made use of: employers divide workers based on the spatial organization of the production process. The decentralized production structure, the spatial division of labor and the individualized household based production process divide workers from each other in the ways they work and earn their living. The separation of different processes in different locations creates spatial placed based differentiation between workers. The unevenness in the regional specialization of coir activities has been an important obstacle in the collective organization of workers. Employment relations, wages and conditions of labor in the industry are very placed based in nature and varied across different places in Kerala. Coir employers also divide and control workers by segmenting the labor market

between the two sectors – the raw material and finished goods sectors (with their own spatialities) -- of the industry based on skill levels of the workers.

Employers make use of non-class forms of oppression based on pre-established notions/ideas and practices of gender/caste differences of employment and wages. In a more general context, as Das (2012) points out, 'the capitalist system is based on competition between individual workers as well as individual capitalists. Using race and gender [as well as caste based affiliations] becomes a competitive strategy for class-subjects all races and genders within the working class' (2012: 29-30). Workers give in to such forms of power relations and labor control because of their vulnerabilities and insecurities arising from a number of situations: workers face threats to unemployment due to fluctuating market conditions. The increasing feminization of labor in the informal raw material sector of the industry has been another strategy on the part of the employers to counter factory-based worker's struggle by male workers in the small formal sector. Female workers are preferred by employers not only because they are a compliant workforce in comparison to male workers; but also because the vulnerability of female workers is increased with the additional burden of social reproduction along with their struggle to earn a living wage. The propertied classes often take advantage of caste and kinship relations over members of their same caste to depress wages and control workers. They keep labor docile by tying them to informal labor arrangements and by creating so called discourses of obligation and wellbeing. As Kelly points out in a similar context in Philippines, capitalists and their agents 'cultivate and use networks in local villages and

communities, extending their reach even into the reproductive and familial spheres of the work force' (Kelly, 2011:16).

Under these economic and political conditions, many workers are subjected to what Brass (2012) calls labor un-freedom, which takes various forms: inter-generational debt bondage and tied labor process, etc. These forms of un-free labor relations impose restrictions on the worker's freedom to sell his labor power freely. These relations reflect an unequal power relation between the workers and their employers and further add to the advantage the employing class enjoys, both economically and politically.

The intermediate class adds another layer to the class based relations of exploitation in the coir industry. This class was the direct outcome of the decentralized production system that colonial capital propagated to counter labor struggles in the coir industry and keep wages low. It is true that surplus from workers (and small independent producers) is not extracted directly by this class through the capital labor relations of production. This class extracts a part of the total surplus as usurious interests/commissions from the direct producers at different levels of production and exchange. This way a part of the surplus extracted from the workers is lost over usurious means, rendering this portion of capital unproductive (not invested in expansion of the accumulation process). The lack of a strong domestic market for coir goods on the one hand and dependence of workers and small producers on these intermediaries for employment and wages on the other, allow for the perpetration of such usurious practices in the industry. Presence of these intermediaries explains partly the persistence of vast

number of pauperized small producers and struggling workers in the coir industry.

In the coir industry, it is not just that economic ownership and possession (the functions of control over investment, of administration and co-ordination and the hierarchy of the supervisory control over labor) and thereby accumulation of capital is concentrated in the hands of a small capitalist class. This social concentration coexists with a spatial concentration: production is organized in a way whereby the activities of places in which the capitalist classes are concentrated, subordinate, control and supervise the activities of those places in which the small producers and working classes are located. In other words, the production of basic and advanced finished goods which is under the control of the capitalist and the propertied classes are located in few urban centers and their peripheries, which exert control on and create relations of dependencies for the multiple disintegrated rural locations where raw materials are extracted and processed by the small scale producers and the working classes. Spatial organization of social relations therefore reinforces the class-based relations of exploitation in the coir industry by means of which, surplus is extracted from the workers and profit is accumulated in the hands of the capitalist class.

b) Productive Forces in the Coir Industry:

The development of the productive forces in the coir industry depends on specific contexts, which are characterized by specific class- based relations of production and by class struggles, which are geographically and temporally variant. In terms of the nature of

productive forces, the two branches of the industry --raw material and finished goods – are integrated though the various stages of coir production, from the extraction of raw material to the production of finished goods. Productive forces in the coir industry are comprised of labor power (at various levels of skill formation), raw materials, and instruments of production. The labor process in the coir industry is carried out in separate independent production processes integrated in one product chain. There are different types of labor power used in the two sectors of the industry, ranging from skilled to semi-skilled to unskilled labor. The degree of skill available or attained in the coir industry increases the productivity of labor, which in turns aids the process of surplus extraction. The two sectors of the industry – which have different geographies -- have different levels of technological development: the raw material sector is technologically inferior while the finished goods sector is characterized by advanced forms of technological development. Raw material produced in one subsector of the coir industry becomes the intermediate product of another production sector. While coconut husks provide the raw material for coir fiber production, fiber is processed into coir yarns, which is used to produce basic coir goods, finally transformed into advanced consumer goods through the process of value additions.

The different processes of production in the coir industry are geographically organized in the four core districts of coir production in the state, which are identified as the coir belt in Kerala. The geographic concentration of certain production processes in certain places reflects and reproduces the spatial division of labor in the industry as well

as place-based specialization of particular forms of skilled/specialized labor, types of coir yarn and techniques used in the production of particular types of yarn. There are at least nine different coir yarns produced as regional specialties in Kerala. The production of each yarn is embedded in the place based settings of a region they are named after. The regional specialization of coir yarns depends on the availability of traditional levels of skills in a specific places and traditional practices involved in the production of these yarns. The sense of place-based division of labor when it comes to coir yarn production is quite strong. Coir-spinners of one region that specialize in the production of a particular yarn hardly expand their scale of production to spin yarns of a different type and quality when they are capable of doing so. The strict adherence to the spatial specialization of coir yarn is also an economic and ideological strategy for creating competition between workers and keeping them divided based on types of yarn in demand and techniques of production as well as differential regional wage levels in the industry as has been pointed out by different studies (Isaac, 1990; Heller, 1999).

Production of coir in India has shown a more or less upward trend in recent years. Export of coir yarn and products has also increased considerably over the last three decades, particularly after the 1990s neoliberal reforms, which promote the export drive of the country. Increase in market demand for coir globally in recent years requires increased levels of supply, which is possible through a simultaneous increase in the productivity of labor per unit. In other words, more output is to be produced in less time (at a given wage level) for employers to remain competitive under changing market

conditions. Coir production in the traditional manual method of production is increasingly considered unsustainable because of low productivity levels in the context of global competition. This has prompted the state to introduce mechanization in the technologically backward raw material sector of the coir industry.

While the state's support for technological changes in the small and medium scale processes has been successful to some extent in raising productivity of labor per output produced, the sustainability of the process of technological change (increase productivity of labor at an even scale in all sectors of the industry) is conditioned by a host of contextual factors specific to the production structure and the underlying relations of production. There are a number of reasons that explain the contradictions between availability, differential access to and utilization of mechanization in the coir industry. First, state-aided, locally produced mechanization of the small and medium scaled raw material and basic goods sectors is unable to compete with the use of sophisticated imported technologies by the advanced capitalist finished goods sector (which is usually based in the cities). Second, the degree of technological change is inhibited in the coir industry due to the inability of the small and medium scale producers to invest and sustain the cost of machineries and other investments. These producers often cannot afford to take the risks of expanding their scale of production under fluctuating market conditions unless protected by the state. Also, de-regulation of the coir industry after the 1990s meant that market prices for coir or risk outcomes of market conditions are no longer protected by the state. I draw here from Starosta's (2010) insightful study on

global commodity chains that explains how small capital compensate for the relatively higher costs of production (accruing from labor cost and other costs of production due to the small scale operation and their inability to invest in technological means) and use of 'obsolete means of production' (as against technologically superior means of production) by lowering their rate of profit[287] (2010:445-46).[288] Small producers in the coir industry, by resorting to such processes of valorization for their survival, sets in motion a lower form of productivity which constrains the development of the productive forces. On the other hand, the ability to of the big capitalist exporters to extract surplus from these small producers at much lower costs prevents them from expanding their scale of production or investments in productivity enhancing technology throughout the industry at a level that is profitable for them. Third, the dominance of relatively small or medium scaled capitalist employers or non-capitalist property owners in the industry compared to the few big capitalist employers, do not provide enough incentives for expanded technological change on the part of the former either to discipline labor or increase surplus value, given the availability of cheap labor power compared to the high costs in technological inputs. Also, the lack of socio-economic difference between workers and medium or small-scaled employers who hire wage labor from their own (caste-based) communities along with family labor means less resistance

[287] This does not imply they do not earn any profit, but the rate of profit is low than that of big or 'normal' capital.

[288] He also says that the limit of this operation tends to expand with relative increase in the concentration and centralization of capital. So, as long as small capital can maintain a level of productivity that doesn't contradict the price at which their valorization takes place, they can continue to persist with whatever low rate of profit they can earn.

of workers to the exploitative work and wage conditions. Fourth, even if middle scale producers (and their co-operatives) or self-help groups of small producers can make investments in technology under special circumstances (if state subsidy is increased or more credit is made available), the consequent rise in technology driven productivity of labor in the absence of a domestic market for the finished products, runs the risk of crisis of overproduction in the long run. Fifth, intervention of the state in mechanization processes in the raw material sector of the coir industry, at howsoever-minimal scale, rather than improving the economic conditions of the small and medium scale producers is impacting the amount of surplus value accumulation accrued with the big capitalist exporters. Once again, as Starosta argues, that if conditions[289] are such that small capitals are able to sell their products at a price that is lower than the price of production of big capitals but above the rates of their own valorization, then a certain degree of surplus profit emerges with the small capitals (2010:446). But this leads to the vicious cycle of competition among the small producers for increasing their share of relative surplus value either through investments in technology or other means to improve productivity, which brings down the price of products and eventually the rate of profit in their hands. However, although this surplus profit slips out of the hands of small capitals this way, they accrue finally in the hands of big capital due to the dependent linkages of implied in a production process such as a global commodity chain. In the coir industry, the increase in the amount of raw material supply due to the technological intervention of the state

[289] These extraordinary conditions could be generated through state mediations in technology or price regulations, which are usually short-lived due to the internal contradictions of capital itself.

allows production of finished goods (due to supply linkages) by the capitalist exporters at a larger scale than before. Technologically aided production reduces the per-unit cost of production with increased production, but prevents small producers from making a profit primarily due to the lack of a thriving domestic market among other things. Therefore, increase in the supply of raw materials to various stages of production (coir yarn for handloom mats and then handloom mats for value added production) makes available greater revenue for big capital as they control the production of the end product and the market for coir. This results in the final surplus accruing in the hands of the capitalist class in the coir industry. Sixth and lastly, the scarcity of raw material also limits the utilization rate of available technology, given the nature dependent aspect of the coir industry. Mechanization (howsoever nominal) of the raw material sector means that the use of raw materials is exhausted in quick times, leading to drying up of the primary raw material (fiber) supplies. Naturally then, if raw material (husks and fiber) is scarce, then the utilization rate of machines, even when available, will be low. This impacts decline in productivity in the long run and inhibits the mechanization process at an extended scale in the coir industry.

c) State Development Policies for the Non-agricultural Sector

The state in India has been playing an important role in the market-oriented development of the RNFS (as in agriculture) including the coir industry, since the colonial era to the recent neoliberal era. The state promotes market-led economic growth in the RNFS not only objectively but also ideologically -- through so-called 'inclusive'

development policies for the workers. While the colonial state supported the emergence of the rural nonagricultural sector (rural traditional industries) in India, state policies for economic development of rural industries was conditional on their ability to generate revenue for the colonial state and potential for trade and capital accumulation for colonial capital. The colonial state operated at the behest of colonial capital. The state made substantial contribution to infrastructural development, trading relations and regulatory support to favor the growth of colonial enterprises. The colonial state's infrastructural support -- in terms of investments in built environment like roads, waterways etc. -- to facilitate any production process that would facilitate the accumulation process of British capital in general helped in establishing transportation linkages for traditional rural industries. The colonial state also provided patronage to colonial capital through enactment of factory legislations for the creation of labor forces for colonial industries in rural areas as well as discipline labor through repressive labor regimes. Different forms of legislative support were also provided by the state for export import policies that roped in rural handicraft industries to British trading practices. Other than supporting credit support and investment in built environments, the colonial state in London also supported export of manufactured commodities from traditional industries like coir from Kerala through trade legislations, exchange rates and tariff controls and establishment of international treaties. However, state policies were uneven for the colonial and indigenous component of rural industries through skewed policies– in terms of uneven trading and credit policies for indigenous industries, restraining the entry of

local capital in colonial ventures and limiting the growth of the domestic market for industrial products.

The Indian state's role in the economic development in India and rural development in particular in the immediate postcolonial period between 1950 and 1990 was conditioned by a number of economic and political reasons. The post colonial era was centered around the idea of rapid industrialization, which the state development planning policies intended to do by first, by limiting imports into the country to raise the efficiency of and protect the domestic markets for local firms (the Import Substitution Regime). And secondly, this was achieved by granting subsidies and heavy concessions to domestic firms and thereby the domestic industrial/business/capitalist class (Chibber, 2004). For this domestic bourgeoisie class -- which is based in urban areas and the most dominant class in the Indian capitalist context – such a regime of protectionsim and subsidies strengthened their material base (Das, 2007). Therefore, as Chibber (2004) points out, while protectionism from market and trade competition as well as subsidization was greatly supported by the urban capitalist industrialist class; they vehemently rejected the central mission of the industrial policy that the state set out to pursue: 'directing the flow of domestic private investments into sectors with high social returns, and away from those in which returns on investment may have brought enormous private profits, but were of less developmental significance' (2004: 4). Thus, the national industrial policy between 1950 till 1970 (first wave of liberalization) and state's action was largely in the interest of the urban capitalist class. Within a capitalist system, the

state has to support the interests of the capitalist class, for it depends on this class for revenue generation and its own material reproduction (Das, 2000). However, the immediate postcolonial phase was also a time, when rural development was also an important area, which the state couldn't overlook. First, due to nationalist sentiments and active role of rural working classes in the nationalist independence movement which garnered support for state formation (Kohli, 1987); and second, due the fact that the Indian state had take into account the interests of competing classes (urban bourgeoisie and rural propertied classes as well as the working class) to legitimize its democratic form besides its dominant capitalist form as well as its actions –facilitating private capitalist interest (Das, 1999: 2108). Such actions of the state were also supported by the urban capitalist class to some extent as they benefited from the vast labor reserves in rural and semi-urban areas (Das, 2007). Also, as Chibber points out: 'because they derive their profits from the domestic market, national capitalists have an interest in the expansion of capitalist relations, and in rapid economic growth…' (2004: 2).

Such underlying contradictions as drawn from valuable insights from these various studies explain why the state incorporated rural industries under a common umbrella with urban industrial development in its post independence industrial policy. As Das points out in a similar context, the context of state actions—aimed at balance opposing class interests while maintaining its stance at national capitalist development--the inclusion of rural industries in the development planning process was ideologically expressed by the state in two ways: first, although the post independence industrial policy

would serve the interests of the urban capitalist class, adding the rural component would be described as a method of national development; and second, the state by incorporating rural industries in the national development program legitimized its actions (protecting private capitalist interests) and its reproduction without attacking private property (Das, 1999: 2108, in the context of Land Reforms in India). The intention of state policies for the RNFS during this time was, as different studies point out was aimed at integration of rural industries to urban modern industries to promote faster growth and self-reliance – one that promotes the export drive by substituting imports -- of the small-scale rural industrial sector. Rural industries were also anticipated to support the urban modern industrial sector by providing labor and other inputs as well as develop the internal market for consumer goods (Tyabji, 1980: 1723; Sandesara, 1988: 645). In terms of capitalist promotion the rural industrial sector was a way to generate small centers of capital accumulation, which would augment industrial capitalism in the country at large and would provide economic opportunities for the rural classes. The small-scale rural industrial sector would generate employment at a faster rate than can made be possible through the slow growth of the large capitalist sector. It would also provide labor and goods essential for the growth of the urban capitalist sector. The development of the rural small-scale industries was also intended for the geographical dispersal of industrial capitalism to areas, which were otherwise industrially backward (Tyabji, 1980: 1725-1726; Sandesara, 1988: 640).

Considering the emerging export potential of the rural industrial sector, a 'target approach' for financial outlay and credit provision was adopted through the first Integrated Rural Development Program (IRDP extensive credit program in e), which was jointly launched by the State and the Central Government in 1980. The IRDP had a sub-target of 40 percent of its loans extended for 'industry, service and business' in rural areas. -- roads, railways, ports and inland water transport, rural electrification -- was essentially the responsibility of the state and was aimed at facilitating trade and transport linkages for the VSI with urban areas and across states. The IRDP played an important role in skill formation in the rural industrial sector during this period. The state also took initiative in marketing support for products, aimed at protecting the small producers and village artisans from competition with large-scale industries as well as providing them state support to boost the initial rural industrialization projects.

In practice however, such goals were not realized to its fullest potential. The rural industrial sector was a low priority sector in terms of the industrial policy and planning pursued by the state in the post independence period. Second, according to the policies of the state, economic development of the rural manufacturing sector was to be realized through regulatory policies of formalizing rural industries through licensing and other legal policies for fair industrial practice in rural areas. In effect, however, only a small section of the manufacturing sector (mostly based in rural areas) was legally fomalized. Third, the traditional/artisanal VSI sector was separated in administrative terms from the modern Small Scale Industries (SSI) sector since the 3rd five-year plan, leading to

differential credit policies of the state towards the both the sector. Such policies benefitted urban industrial development rather than the rural traditional manufacturing sector. Fourth, rural infrastructural development was only partially successful and spatially uneven. Fifth, the rural industrial sector could not access sufficient credit through various government schemes during this period. Assistance through state programs like IRDP was also geographically uneven across the states of India. Sixth, while credit supply has been limited for rural nonagricultural industries, the share of government assistance for technology, marketing or skill development was markedly different for different types of entrepreneurs. Despite state's policies to augment economic development of the rural industrial sector, it remained largely an appendage and subsidiary of the urban industrial sector during this time. Studies have pointed out that rural the benefits of government fiscal and financial subsidy to the small-scale sub-sector have, have flowed to the large-scale sector (Kashyap, 1988: 677-78). Rural industries also have a higher capital output ratio, which is comparable to the urban industrial sector (Annual Survey of Industries, various years, www.indiastat.com). Urban industrial processes can therefore benefit from such outcomes through an integrated industrial policy.

The rural nonagricultural sector had come to occupy a significant position since the 1990s, particularly due to its increasing potential in rural employment generation and export-based production. With the slow decline of the agricultural sector in both production and employment prospects due to the impact of uneven neoliberal policies,

increasing incidences of poverty and rising unemployment has created concerns for rural development in general. On the other hand, the shift towards export promotion as part of neoliberal structural adjustment has led to an overall export drive in the country resulting in promotion of export oriented production in both the traditional (VSI) and modern (SSI) components of nonagricultural manufacturing processes in rural areas. There has been a renewed emphasis on the integration of the rural manufacturing sector with urban – both foreign and domestic based -- export based production processes through labor, product, trade and supply linkages. Promotion of rural entrepreneurship through self-help programs and industrial cluster formation for integrating rural manufacturing with urban industrial processes by the state is aimed to facilitate private capital investments in erstwhile state-led rural industries, allow free play of market principles and aimed to increase productivity and technological development of the VSI and SSI sectors along with other sub-sectors through generation of market competition. Thus post 1990s state policies towards the RNFS emphasized the importance of privatization and promoted increased entrepreneurial capacity of the RNFS, whereas rollback of public expenditures in all spheres of the economy including the RNFS.

State policies at the national level as well as the sub-national level have been able to instigate to some extent -- market based principles in rural industrial development in the neoliberal era. In terms of rural entrepreneurship there has been an increase in rural enterprises between 1998 and 2005 with rural nonagricultural enterprises. Rural institutional credit for rural nonagricultural sector grew at a relatively faster pace with

increased availability of micro-credit to self help groups under SGSY program and an increase in number of self help entrepreneurial groups (particularly women) across states in India. The state has also extended technological assistance and market expansion considerably for rural industries. In terms of infrastructural development during this period, a significant percentage of rural electrification and rural road construction targets were realized. These achievements were similar for all components in case of Kerala as well.

Although economic growth was achieved in the country's economy including the RNFS in the first decades following neoliberal reforms, this has been accompanied by growing inequalities. The trend in the increasing rate of privatization in the Indian economy since the 1970s and declining ratio of public expenditure has certain political economic contexts. As Kohli, 2012 points out: the protective industrial regime between 1950s and 1970s led to a sluggish growth of the Indian economy by the 1970s. The consequent measures taken by the state to address this – expansion of the private economy, tax concessions to big industry, discouragement of public sector spending and labor activism -- led to a further drain of national financial resources and greater borrowing of foreign funds (2012: 11-12) This pro business pro growth approach of the state led to enormous concentration of political power in the hands of the Indian business class on the one hand and a major financial crisis in 1991, on the other. Such developments marked the gateway for the first wave of liberalization in the country in the 1970s and the entry of neoliberal capitalist regime in India and further privatization of the

national economy since the 1990s, now through increased global capitalist processes (Kohli, 2012). While this pro business approach of the state led to a buoyant dynamism in the country's economy in the neoliberal era, whereby public resources are now available for the poor and improved some aspects of rural poverty (for instance market led development of the RNFS), Kohli points out, 'some of these newer policies [of rural development] are driven by electoral pressures...[and] the state's capacity to reach the poor continues to be limited' (Kohli, 2012:2).

The outcome of state policies in the RNFS since the post 1990s has been uneven across the different sectors of the rural industrial economy and spatially across states in India and has not been able to benefit the poor in the RNFS despite market led economic development in this sector. The share of village industry in total plan outlays has been quite meager and showing a declining trend. This also indicates the withdrawal of the state from the budgetary allocations in general in the current neoliberal period allowing scope of private capitalist investments in rural areas. Although the state took an important initiative in integrating public-private partnerships to provide rural credit for self-help entrepreneurship, there has been a decline in total credit available to rural industries in recent years. On the other hand the ratio of credit provision to the small-scale (SSI) sector has been significantly higher than the village industrial sector (artisans). The SSI sector earned 33.4 percent credit from private sector and foreign banks in 2007. The SSI sector also earned 41 percent of public-private credit in 2007. State policies have been selectively biased in regard to the capital-intensification of the SSI sector, which is

largely dominated by relatively affluent classes compared to the village industrial sector which remains largely labor intensive in nature. Technological support has also been relatively higher for ancillary industries. Rural micro-finance projects, asset generation and infrastructural support schemes and human capital formation programs for the RNFS of the state, brought under the umbrella of the Swarnajayanti Gram Swarozgar Yozana (SGSY), has not been able reach the targeted or the poorest of the poor population in rural areas. Micro-credit sponsored self-help program for rural nonfarm development has also been spatially uneven with partial success across states in India. The outcome of state policies in Kerala also reflected similar trajectory as the national scenario. The success of micro-enterprise units was limited. Technological support from the Kerala state didn't reach the small and medium scale units. State policies in Kerala for the rural nonagricultural industries have been uneven across different rural industries, within the sub-sectors of the same industries and among different producers in the same industry due to the selective engagement of the state with specific sectors. Differential outlays favored the high revenue earning industries and sub-sectors of industries over others. The increasing privatization of the national and sub-national economies in India in the neoliberal period and the state's dependence on private capital for development of its economic sectors and for revenue generation in the neoliberal era have led specific policies to serve certain class interests which in turn promotes class-inequalities in the context of the RNFS.

d) Development Implications of the RNFS in the Context of the Coir Industry:

Contradictions in the development of the productive forces, unequal class relations in the RNFS and uneven state policies have implications for its development outcomes in terms of employment, wages and income as well as the social and physical wellbeing of the rural population engaged in it.

Employment trends in the coir industry at present show uneven trends across the two sectors of the industry and across the coir belt; there is significant amount of underemployment and large-scale informal employment; and employment is highly irregular. Incidences of unemployment are higher for the raw material sector compared to the advanced finished goods sector of the industry. Instability in the global markets in recent times, intermittent periods of rise and fall in the volume of exports and recent mechanization processes have led to unemployment, irregular employment, gross under-employment as well as competition among workers for available work in the raw material as well as the basic goods sector of the industry. Employment relations are formal in the finished goods sector and largely informal in the raw material extraction and processing sector of the industry. Employment in the formal and the informal sector is also geographically uneven across the coir belt and outside it. While formal production processes – in terms of factory-based employment – are located primarily in the semi urban and urban areas of the industry, the informal household based production units are dispersed in disintegrated rural locations, within and outside the coir belt. Unemployment

rate in the coir producing regions has been higher compared to the total unemployment rate in Kerala. The recent technological changes, particularly in the raw material extraction and processing sectors, have also aggravated underemployment and unemployment conditions in the industry as technologically displaced workers sit idle as surplus floating labor reserves. Decreasing availability of work in recent times due to shortage of raw materials and competition in coir production from other neighboring state of Kerala has also added to the share of underemployment in the industry.

Wages in the coir industry have been historically low and limited in nature. Wages are mainly paid in cash but also in kind under certain circumstances, particularly when small producers are under economic distress or when family labor is employed. There are two main forms of wages -- time wages and piece-rate wages, the latter being the dominant form of wages in the industry. While time wages intensify work by lengthening the working day, piece-rate wages are a more intensified form of time wages and perpetrate relations of exploitation and social oppression between the employer and the worker. As Gidwani (2001) points out in his own study, in the case of the coir industry too, piece rate system allows for the evasion of minimum wage legislations, which are applicable only in the context of daily wages. Employers resort to piece-rate wages to enhance productivity levels of workers and lower the cost of supervision in the production process. The piecemeal rate per product (yarn or coir mat) in the coir industry, is often arbitrarily fixed/decided by the employer/subcontractor without following the standard minimum wage rates prevalent in the market as per government regulations.

Here the employer takes advantage of the informality (non-contractual/non-legal bindings between employer and worker) of a production unit in terms of employment and wage decisions. This form of wages by imposing self-discipline and efficiency in the worker also helps in the extraction of surplus labor. Employers deploy the piece wage system as a means of controlling labor by intensifying the labor process and indirectly lengthening the working day, just as Marx had described in Capital 1 (1867: 994). This way employers also keep workers divided by increasing competition for work and performance based on which wages are earned. Studies have shown how discursive practices based on certain societal perceptions translate to the dynamics of the work place and the relation between the employer and the worker in general and terms of employment and wages (Gidwani 2001, Kelly, 2001). As Gidwani argues, employers use piece rates as a form of discursive control that 'bundles the notions of 'social regulation' and 'self-regulation' into the concept of 'work governmentality'[290] (Gidwani, 2001: 74). Such practices are based on pre-constructed cultural notions of collective or self-understandings that inform everyday social interactions -- as social facts, which are again based on socially regulated meanings of internalizing how we conceive of the world around us. In the coir industry, the fact that employers and workers belong to the same caste group (*Ezhava)* in majority, allows for employers to engage in such discursive

[290] "I use the term 'work governmentality' to denote, simultaneously, the structural management *of the* labour process (achieved by controlling access to income-generating assets or means of production) and internalized management of work practices *within* it by members of a group, whether affiliated on the basis of class, caste, race, or gender (the salience of particular units of analysis must remain an empirical question)"(Gidwani, 2001:74).

practices of work and wage implementation by generating a practice of 'self driven' wellbeing in the workers waged as for the common interest of their caste or community.

Employment and wages impact social indicators of development. Workers' household incomes – which are a function of hours/days of work performed and wages per hour/day -- in the coir industry are limited in nature and uneven across the two sectors and different households engaged in different occupations. This is because of lower wages and differential wages across the two sectors in industry (wages are relatively low in the raw material extraction and processing sector compared to the rest of the industry), irregularity in the availability of work or employment in a year, inability of workers to diversify employment in other sectors due to skill requirement or place based ties and lack of consistent higher paying income sources outside the industry. Incomes are also differentiated between households, which are entirely dependent on the coir industry, and the households that are engaged in different occupations outside coir. Remittances also play an important role in household incomes for coir families, providing support for household consumption related activities. However, it was found in the course of fieldwork, that despite the fact that Kerala has a large outflow of migrants to different parts of the world, including the Middle East, the return from remittances is relatively higher for only those better off households that are relatively advantaged in terms of educational background or other forms of privileges (due to which workers are able to find relatively well paying jobs abroad). For such households in the coir industry, the remittance money is used for higher quality of life, education; it is occasionally used to

purchase improved means of production as studies have pointed out in different contexts (see Kelly in a different context, 2010). Intensive work conditions also have adverse impacts on physical wellbeing. The length of the working day, intensification of labor and the strenuous nature of coir work have ill impacts on mental and physical health issues of coir workers. Health issues increase the vulnerability and employment insecurities in workers.

The growing vulnerability of employment and wages for workers in the coir industry in recent years has been situated in the context of the contradictions of the capitalist production process in the coir industry. The initial period of the evolution of the coir industry and its expansion in the 1920s due to rise in global demand for coir, raised demand for workers in the industry. However, with the downward demand for coir products globally in the postcolonial era until the 1970s and fluctuating global markets ever since, intensifying with the 1990's neoliberal reforms, demand for labor has slackened over time. Employers have over the years resorted to depressing wages and cutting down labor costs to remain competitive within their respective profit margins. Such practices have put downward pressure on worker's employment, wages and work conditions and have contributed to the overall vulnerability of the worker in their effort to struggle to earn a living wage. The instability of the capitalist production of coir and resultant vulnerabilities of the working class is also therefore reflected in the decline of trade unionism and working class struggle in the coir industry in recent years. While working class struggles in the form of trade unionism have been historically instrumental

in worker's welfare in the coir industry despite wages being low; worker's struggles have faced crisis of sustainability in more recent times. Few related factors have contributed additionally to the decline in trade unionism in recent years: first, a growing reserve of surplus labor in the coir industry in the post colonial period have heightened the competition between workers for available work given the fact that market is unstable and work is irregular. Struggle for a living wage becomes an immediate concern for workers, which comes in the way of collective organization for larger class interests. Second, instabilities in the global market and periodic episodes of low demand for coir make employers resort to flexible labor practices as mentioned above. Employers have also started implementing technological change, both as a means to increase productivity of labor as well as a strategy to control labor at the point of production as well as their struggles for better wages and work conditions. Third, deregulation of the industry since the 1990s and the resultant withdrawal of the state from social protection of workers and support to trade unionism have weakened worker's struggle considerably. The increasing threats of unemployment have led to 'voluntary mutual agreements' between employers and trade unions, in favor of flexible labor regimes and private capitalist projects. Studies have pointed out in general the decline of trade unionism in most countries to allow for neoliberal market oriented production and capital accumulation (Heller, 1999; Sadler, 2003; Albo, 2009). The cumulative impact of such tendencies is reflected in the nature of employment and wages and their impact on social development of the working class in the coir industry.

9.4. Contribution to the Academic Literature on the Rural Nonfarm Sector and Geographically Informed Political Economy of Development:

The vast body of academic literature on the political economy of development has focused on and debated the development of capitalism in rural spaces from the vantage point of the agricultural sector and agrarian societies. The political economy of rural areas has been more or less the political economy of agriculture. Scholars from Kautsky (1899 as cited in Das 2007) to Lenin (1899)[291] -- and those who have conducted their research in more recent times in the tradition of Kautsky and Lenin (Byres, 1977; Brass, 1984; Bernstein, 1996; Watts, 1996) -- have explained the development of capitalist class relations primarily, if not exclusively, in agriculture (in rural areas). It is also the case that scholars from Lenin (1899) to Marx (1977) -- and those who have (critically) followed their footsteps -- have emphasized *non*-agricultural activities in *urban* spaces. As a result, the formation and development of capitalist relations of production *outside* of the agricultural sector but *inside* the rural spaces has not received the conceptual and empirical attention that it deserves. My dissertation speaks to this important gap.

The RNFS has not been entirely ignored, however. But to the extent that there is a discussion on this, much of this academic literature in the context of the developing countries and in India has focused merely on the dynamics of the growth and development of this sector as a means of rural employment and poverty alleviation strategy. A part of this literature emphasizes the factors underlying the development of

[291] This book talks mainly about development of capitalist relations in rural agriculture and urban industries.

the RNFS in terms of its growth linkages with the agricultural and nonagricultural sector (Hirschman, 1958; Mellor, 1976; Anderson and Lierson, 1980; Harris, 1987; Hazell and Haggblade, 1989; Chandrasekhar, 1993; Lanjouw and Lanjouw, 2001; Start, 2001; Reardon, 2008), role of the state in the development of the RNFS (Reardon, 1998; Davies, 2003; Wandschneider, 2003; Coppard, 2001), and the impact of neoliberal globalization on the development of the RNFS (Saith, 1992; Reardon and Barret, 2000; Rozegrant and Hazell 2001; Start 2001; Davies, 2003). The other important area of focus that the current body of literature examines, is the development consequences of the RNFS in terms of income and wages in rural areas; rural labor relations as well as the gender and caste aspects of the RNFS and the rural populations engaged with it (Anderson and Leirson, 1980; Srivastava, 1999; Kannan, 1999; Lerche, 1999; Wilson, 1999; Kumar, 2008). Although these are substantive areas of rural development studies, the existing literature has largely ignored the *class* character of the RNFS and its impact on uneven social and spatial development of the RNFS in developing countries as well as in India. The point of departure for the current research is therefore to examine the historical-geographical development of *capitalist* relations in the RNFS -- evolving from its own contradictions -- outside of agriculture but within rural spaces. This research contributes significantly to the limited literature conducted on the rural nonfarm economy in developing countries, which looks at class-based relations of production and productive forces in the RNFS, with a specific focus on the coir industry.

This research is informed by a Marxist Political Economy approach to issues of development and draws insights directly from Marx and Lenin's (1899) work as well as from other Marxist and critical Marxisant scholars. This research therefore contributes to a 'geographically inflected' approach to political economy of development in general and the political economic development of the rural nonagricultural/nonfarm sector in particular. Such an approach draws from as well as potentially contributes to both the intellectual (in terms of theory) and practical advancement of the literature on political economy of development, economic geography and the rural nonagricultural sector.

By implementing a historical-geographical materialist approach to study the social and spatial process of capitalist development in the RNFS, this research relates to studies that have examined the connection between spatial configurations and socio-spatial processes under capitalism in general. The relevance of Marxist political economy approach to study objects and phenomena in economic geography has been pointed out my many scholars (Harvey, 1982; Smith, 1994; Swyngedouw, 2003; Sadler, 2003). As Merrifield and Swyngedouw (1997), point out -- '[social] justice (however conceptualized) is a deeply geographical affair, and that emancipatory or empowering politics and strategies are necessarily geographical projects -- in much the same way as capitalism is an inherently geographical process' (Merrifield and Swyngedouw, 1997 cited in Swyngedouw, 2003:43). 'Production' as a process by which the form of nature is altered and forms the basis of social life as well as its historical evolution over time and space are central to the principles of a historical-geographical materialist approach. As

Smith points out –'the metabolism of human beings with nature is the process whereby human beings appropriate the means to fulfill their needs and return other use-values to nature' (Smith, 1984:36). The economic activity of production is carried out through a set of social relations of production. Social relations of production in a capitalist system of production is based on class based relationships of exploitation, domination and control by those who owns the means of production, of those who own nothing but their labor power that they must sell for their subsistence. Class as a relation or process therefore produces 'class' i.e. 'large groups of people': the exploited and exploiting classes (and other 'classes' in between) (Harvey, 1996 as cited in Das, 2012:24). Class analysis therefore becomes the focal point of this research in its relation to the capitalist system of production in the context of the coir industry in particular and rural nonagricultural activities in general.

This study also draws insights from the political economic literature on the labor process under capitalist production. Class analysis of the capitalist labor process points out the different ways in which surplus labor is produced by the various place-based sections of the working class and appropriated by the various fractions of the capitalist class, in their common pursuit of capital accumulation (Das, 2012). This research looks at how the capitalist class in the coir industry employs an economically (and sometimes even extra-economically) coercive process to extract surplus value from workers by lengthening the working day, the depression of wages as well as despotically controlling or dominating the labor process (deskilling and employing strict labor regimes as well as

use un-free forms of labor as and when their political and economic interests are challenged) (Braverman 1974 as cited in Das, 2012; Burawoy, 1985; Brass, 2011 cited in Das, 2013; Smith, 2009). This research also shows how the capitalist class in the RNFS employs discursive strategies, to exploit and control labor through the use of: cultural notions and practices of employment and wages (Kapadia, 1999; Gidwani, 2001); social networks and ideologies to keep labor docile and obligated (Kelly, 2001, Chari, 2004; Rigg, 2006); commodification of the household as an institute of capitalist production system (Wallerstein, 1984); and segmentation of local labor markets aimed at keeping workers divided from each other (Kelly, 1993; Peck, 2003).

A significant aspect stressed throughout this dissertation is how class based relations of production is intertwined with gender/caste/race based forms of social oppression to reproduce/reinforce capitalist relations of exploitation. As Das (2102) points out, 'class is an important condition of race and gender, although the latter are not reducible to it' (29). Giminez (2005), the Marxist-feminist, argues, 'that the discrimination against women is dominantly determined by the way in which capitalist class relations are articulated with the gendered- organization of physical and social reproduction among the working class' (as cited in Das, 2012:30). Class and non-class relations are also geographically produced and sustained, at the point of production as well as in terms of organization of spaces of work. Local labor markets, conditions of labor as well as spaces of work are deeply structured by race and gender relations (Wright, 1997 as cited in Peck, 2003; McDowell, 1999). While cultural dimensions

cannot be separated from material aspects of the social relations of production, cultural (informed by gender or racial practices) notions of work and geographic space have played an important role in social stratification of socio-spatial relations (Massey, 1994; McDowell, 2008). As McDowell (1983, 2008) points out, the dual burden of reproduction and production that women workers are burdened with along with gendered notions of work spaces in capitalist processes limit their economic and social mobility compared to men (1983: 67; 2008:22).

This research also draws insights from studies that examine class processes and class struggles (both capitalist and working class) seen as socio-geographical and multi-scalar in nature (Das, 2012). As the Marxist geographer, Gough (2004:186), says: '[T]he capital-labor relation operates and is constructed within each scale from workplaces to the globe. But at a somewhat more concrete level, [this relation is] carried out (partially) over particular distances or organized across territories of particular scale and these distances and scales enter into their construction' (Gough 2004: 186 as cited in Das, 2012:27). Place bound relations and networks play an important role in capital's profit seeking interests as well as for the social reproduction of labor (Cox and Mair, 1988 cited in Das, 2012: 27). Capitalism is a self-expansionary process, which depends on the productivity of living labor to produce surplus value, which is appropriated by capital. Capital and labor confront each other –the former in its quest for surplus extraction and latter over its struggle for a living wage for its subsistence – resulting in agonistic social relationships (Das, 2012). Localized working class struggles are often waged against

capitalist ventures to extract surplus (Sadler, 2003). Given the territorial nature of capitalist organization of production, this struggle too is 'inscribed in, and unfolds over space' (Swyngedouw, 2003: 48). My research looks at the impact and manifestation of such contradictions within capitalism in the localized context of 'place' based processes. Class based analysis provides the explanatory framework to understand how unequal relations of production are spatially organized and contributes to the uneven social and spatial development in the coir industry. As Massey points out, 'the concept of uneven development must relate to...the spatial structuring of those relationships -- the relations of [class based] production – which are unequal relationships and imply positions of dominance and subordination' (1994: 87). The geographical organization of production in the coir industry is conditioned by the nature of place based social relations of production. The advanced production processes (production of technologically enhanced finished goods) in the industry are located in those places (urban or semi-rural), which have the concentration of the powerful classes (capitalist and propertied classes) in the industry. Whereas, places (rural areas) less advanced processes (technologically inferior process of raw material extraction) and the classes attached with them are subordinated to the control and supervision

This research also looks at how class relations condition the development of productive forces (labor, instruments of production and raw material) in a capitalist production system. As Cohen (2000) argues, the capitalist economic structure – constituted by the productive forces and relations of production – 'arises when and

because productive power attains a moderately high level, and persists because it is uniquely suited to raise that power to very high levels' (180). In other words, for Cohen the capitalist economic structure can appear only when productive powers have fairly advanced (2000: 193). But as Marx himself says, and for many Marxist scholars, the extent to which productive forces -- driven by the needs of capitalist competition -- can develop in a capitalist economy is conditioned by the nature of social relations of production and class struggle –- both capitalist and working class (Das, 2011). The need for productive forces to develop (particularly through technological development) depends not only on capital's need to extract surplus for its reproduction, but also on the necessity of individual capitals (as fractions of the capitalist class) to maximize their profit to survive capitalist competition (Starosta, 2010). However, structural constraints (due to class based relations of exploitation) and specific contextual factors arising from specific conditions of production, which vary over time and space, inhibits the capitalist imperative to increase surplus through productivity enhancing technological processes. Drawing from Starosta's (2010) insightful critical study of commodity chains in global capitalist system, this research brings into focus the structural constraints in product based hierarchical production structures (as in coir) and the contradiction they pose for the development of productive forces. As Starosta points out, capitalist production is centered round the production of surplus value, the bearers of which are the independent forms taken by social labor manifested in the form of individual capitals (Starosta, 2010). These individual forms of capitals (small and medium scale producers) are structurally

organized within a specific set of social relations of production, each partaking in the process of valorization at various degrees, driven by the laws of capitalist competition. The dynamics of capitalist competition which sets into motion the necessity for the realization of relative surplus value for each of the individual capitals of various magnitudes and their efforts to valorize their own capitals result in the uneven development of productive forces within and across branches of production (Starosta, 2010:443-444).

The coir industry is dominated by many small capitalists, who are a part of a hierarchical structure, in which smaller and larger scale units operate. Small capital (small scale producers) in the coir industry, due to their financial inability to invest in productivity enhancing technological changes resort to absolute forms of surplus production (by lengthening the working day or depressing wages). Such tendencies than lead to two outcomes- first, unable to sustain themselves in the course of capitalist competition, some small producers go out of business, thus causing centralization of production (and thereby ability to invest in technological development) in the hands of a few. Second, even if some small producers have been able to generate surplus value by availing recent state aided technological processes in the coir industry, this surplus finally accrue in the hands of big capital due to the dependent linkages of the product itself. This means that the big capitalists that tie small capitals through supply linkages of inputs for production of finished goods (normally the case in a hierarchical production process like a commodity chain like coir) benefits from the surplus accruing through the low price of

the products produced by the small producers due to state supported mechanization process. Thus the entire process of such dependent production processes finally ends up with surplus accruing at the hands of a few in the process of which the development of the productive forces are compromised.

The development of productive forces for economic process like coir is also dependent on nature and on the way capitalist imperative to maximize profit comes in conflict with nature. Burkett (1999) cites various instances from Marx's work[292] where he describes how the growing need for capital to maintain production and accumulation requires a 'throughput' of ready supply of raw material at hand. The demand for raw material is also triggered by capitalist competition and the resultant increase in fixed capital (technology), which in turn demands increased in surplus value for profit to be accumulated. As Burkett points out, a time arrives when 'capitalism's accelerated throughput involves a conflict between the time nature requires to produce and absorb materials and energy versus the competitively enforced dynamic of maximum monetary accumulation in any given time period by all available material means' (1999:113). From this point onwards, productivity increase drains available supply of raw materials, which then pose crisis for productivity and other related consequences. Citing Marx, Burkett points out how, shortage of raw materials lead to disruption of the scale of production required by the technical basis of the production process; puts pressure on the subsistence of the existing labor force as less labor is required to produce raw materials

[292] See Burkett, P (1999) Chapter 9-Capitialism and Environmental Crisis: 107-132.

leading to cost cutting and resultant unemployment; and more importantly devaluation of capital invested in machinery as more machines remain idle without the raw material to work upon (1999:112-115). Drawing on such a conceptual framework, the complex relationship of nature and the development of productive forces have been explained in the case of the coir industry. The recent mechanization drive in the coir industry to enhance increased productivity levels due to rising demands of coir in the global market and resultant capitalist competition has been one of the reasons for the scarcity of raw materials in the industry. Scarcity of raw materials in turn has come into conflict with production of finished goods to meet market demands along with rising unemployment levels particularly in the raw material processing sector of the industry. Scarcity of raw material has therefore rendered to some extent the technological development in the coir industry unsustainable.

This research also draws insights from studies that show the relationship between class relations and their mediation by the state in economic processes, which leads to uneven development consequences over space and time. The class character of the state is reflected in its policies for economic development, which more often than not serves capitalist class interests and increasingly so in the current neoliberal era (Das, 2007). Neoliberal state policies all over the world have withdrawn from traditional forms of re-distributional welfare practices prevalent in the 1960s and 70s to make way for free market policies driven by capitalist competition and power of private capital (Jessop 1994, and Peck and Tickell, 1994 as cited in Swyngedouw, 2003). State interventionism

through regulatory policies for the poor has been abandoned and new regulatory policies have been implemented for flexible accumulation processes to suit the neoliberal agenda of market based capitalism (Albo, 2009). Such combinations of unequal class policies and selective intervention of the state in the current neoliberal period have contributed (as studies have pointed out) to the declining possibility of working class organizations (Harvey, 2000; Albo, 2009) and have shaped a trajectory of uneven geographical development at different scalar levels (Massey, 1994; Smith, 1994). As Albo points out, 'neoliberalism sought to roll back the gains of unions and workers in the workplace, and put an end to the push by unions and leftist parties for greater worker control in enterprises and democratic determination of economic priorities at the level of the state. Their policy response was measures to weaken unions in workplace representation, deregulation of labour markets, increased corporate property rights and free trade in capital and goods' (2009:124). Declining trade unionism in the coir industry in recent times is a manifestation of such neoliberal policies of development and the selective withdrawal of the state from social welfare policies prevalent in the pre-neoliberal period.

This study bridges the rural/urban, agricultural/industrial divide in understanding economic processes within capitalism. As Roberts points out, in an age of increasing integration of global production processes between multiple scalar and spatial levels, the rural cannot be separated from the urban as two distinct spatial processes: '...rural phenomena are produced from the same range of social processes as other phenomena

and studying them requires the same theoretical understandings. This requires a re-definition of the possible pathways of rural social transformation and the ways that rural areas are integrated into global restructuring [processes]...what happens in rural areas can no longer be considered insulated from or irrelevant to larger social change' (Roberts, 1996:359). Similarly, the rural nonagricultural sector should also be seen as a process that connects the two main spheres of economic activity –agriculture and industry. As Page (1996) suggests, incorporation of agricultural studies into industrial geography, 'is more than simply mapping industrial theory directly to rural terrain; it involves an exploration of the peculiar process of capitalist development surrounding the farm [and rural spaces]' (Page, 1996: 372). Production linkages (forward, backward) of rural nonagricultural activities to other sectors of the local economy -- industrial or agricultural – as we have seen earlier, assumes significance in the existing literature on the RNFS. The coir industry as described in earlier chapters, did not emerge primarily due to surplus conditions in agriculture or agriculture driven pull factors. However, commercialization of the agricultural sector during the colonial era did lead to an early movement of surplus labor – mostly under conditions of distress or driven by pull factors --from the agricultural sector to the coir industry. Therefore, so far as growth linkages from the agricultural sector are concerned, agriculture provides both forward (in terms of supply of raw material and labor) and backward (semi processed coir is used for agricultural purposes) linkages for the industry. These growth linkages can be largely understood from the perspective of supply driven conditions or consumption linkages only. On the

other hand, export based nature of production indicates that the coir industry is also driven by consumption and trade linkages outside of rural areas. Thus, growth linkages of the coir industry are not unilaterally determined (agriculture or industry led), but are outcomes of complex processes within the RNFS and its linkages to both the agricultural and industrial sector or to rural and urban areas. This study also emphasizes the relationship between the formal and informal sectors in the context of the coir industry, indicating largely how the existence of the so-called formal sector depends to a great extent on the informality of work and informal labor.

In other words, this research emphasizes the relational nature of economic processes and geographic spaces as they unfold in the context of a capitalist system of production. This way, the existing research also contributes to the existing literature on critical rural geography.

9.5. Limitations of the Existing Research and Recommendations for Future Research:

There are a few limitations of the current research. First, although this study deploys a historical geographical materialist approach to study the rural nonagricultural sector in India in general and the coir industry in Kerala in particular, the discussion of space has been largely limited to 'place based' dynamics of the spatial structuring of social relations of production in the coir industry. In other words, and in terms of conceptualization of space, what has remained underexplored is how spatial configurations emerge out of the 'fixity and motion arising out of the circulation of

capital, between concentration and dispersal, between local commitments and global commitments [that] put immense strain on the organizational capacities of capitalism' (Harvey, 2006: 442). In this context, dynamics of 'place based' labor markets and their integration to global circuits of capital needs careful attention. Related to the inadequate treatment of space is another issue: although the current research acknowledges and implicates the impact of global capitalist processes on local production related activities and the integration of global-local processes, such linkages are yet to fully established in practice in an uniform fashion, in the context of all forms of rural nonagricultural agricultural activities in emerging contexts as in India and Kerala. Such an enquiry will be a significant agenda for future academic research projects. More specifically, macro-economic policies such as the recent Association of South East Asian Nation (ASEAN) treaty on free trade reforms have to be looked at in terms of its impact on rural nonagricultural activities including coir in the coming years, due to impact on coconut cultivation in Kerala. There has been large scale loss of incomes in Kerala due to large quantities of the same commodities produced by small farmers, peasants and, small and medium scale rural entrepreneurs which are coming into India from the ASEAN countries under the FTA since 1990s (Quoting T.M.T. Isaac, Former Finance Minister, Kerala Government, The Hindu, 2009). As Mohanakumar (2011) observes, although FTA through the ASEAN is based on the argument that gains from trade will increase the productivity and area expansion of significant tradable crops (particularly produced in Kerala), this will not benefit small and medium producers in the agricultural sector in the

long run. Price instability of specific crops in the global market along with the fact that India's share of world production of specific crops have declined over the years and the gap existing between production and consumption in the domestic market, will have negative impact on small and marginal farmers in Kerala (Mohanakumar, 2011:16-17). Such processes will impact rural industries like coir, which are dependent on the agricultural sector for raw material. A study of the impacts of such macro economic policies on rural development will provide additional insights into the class character of the RNFS in Kerala and policies of the Indian state for the development of the RNFS. An important area regarding the global-local linkages in the RNFS in general and the coir industry in particular is the dynamics related to global production networks/global commodity chains through which global exports and export based production such as coir takes place. Although the concept of global commodity chain has been introduced from a critical analytical point of view in this dissertation (Starosta, 2010), there is a need to establish a larger conceptual framework to understand the dynamics of power relations and actors involved in such commodity chains globally. In this regard, studies like that of Nelson and Pritchard (2009) in the context of Southern India will be very insightful for future research.

Secondly, the role of the state in the economic development of the RNFS in the current research is discussed at a general level through an examination of state policies, with limited reference to the political, economic and the territorial *form* of the Indian state and the sub-national state in Kerala (as discussed in Kohli, 1987; Chibber, 2005;

Das, 2007). Also, once again, the role of the Indian state in the economic development of the RNFS is an emerging one, not as established as in the case of the agricultural or industrial sector. This context limits the availability and reliability of comprehensive secondary data on the relationship between the state and the RNFS. Another dimension of state intervention in the RNFS is the positioning of the state and state actors within the power dynamics of global commodity production or global commodity networks. This dimension needs to be explored in details in future research projects.

Third, the discussion on the relationship between nature, environment and development of productive forces under capitalism has only been introduced but not addressed in detail in the tradition of social ecology as developed by Foster (1994) and Burkett (1999), a perspective which stresses 'capitalism's tendency to degrade the natural conditions of human existence' [which can be explored via]...the connection between the Marx's labor theory of value and ecological perspectives' (1999: 79). This has been as mentioned above, due to the emerging nature of the current study.

Fourth, the cultural dimensions of rural development projects and rural livelihood approaches have been briefly introduced as and when the empirical data permits. A discussion on the cultural dimensions of the political economic development of the RNFS is of considerable importance and would contribute to a culturally inflected political economy in economic geographical studies (Barnes, 2001, Sheppard, 2002). In other words, it is pertinent to examine how material conditions of life -- as well as how cultural

practices (education, perceptions, awareness) influence our economic decisions and social behavior -- and struggle for change influence the implementation and outcomes of development processes.

Fifth, the study has encountered a major methodological challenge: there is a paucity of primary quantitative data (collected through first hand surveys in the field) as evidence to support specific arguments made in this study. Although the research design emphasizes a combination of intensive and extensive research design, this dissertation is largely based on a qualitative analysis of interviews and field observations, which focus on causal mechanisms, including those about class and on-class relations and their impacts on wages (e.g. what is the actual amount of wage disparity between low caste female workers and high caste male workers in the coir industry?) rather than how widely prevalent these mechanisms are. Conducting extensive surveys to collect primary statistical data was beyond the scope, financial constraints and time frame of the current research. Studying more diverse and comparative categories of RNFE will be an important agenda for future research. Also, to examine the coir industry more adequately, one needs to pay a lot more attention to the urban part of the coir industry (i.e. the part that is controlled by large-scale enterprises) and to its linkages to the rural part than I do.

APPENDICES

APPENDICES TO CHAPTER I

Appendix 1.1. Questionnaires used in the Field

a) Labor:

I. Household labor

1) Name, age, caste, gender, education (Common to all categories)
2) When did you start working in this industry?
3) Have you been associated with this industry generationally? Did family members prior to you worked in this industry?
4) How many people work for coir production in your household? Who are they? Who does what work?
5) Are there any other occupations members of your household engaged in? If so, what are they?
6) Do you work for one or more subcontractors?
7) How are prices set-on what criteria? Who sets them?
8) How much of yarn/coir products you produce on average in a work day?
9) How much time do you spend in production? What activities do you do regarding work in a day?
10) How much do you make for a unit of the product?
11) Why did you decide to work in this industry?
12) Do you have alternative avenues for employment? Have you sought them?
13) What is the nature of the relationship between you and the subcontractor/factory owner?
14) What is your level of education?

15) How is your income spent-health, education, cloths and leisure? (Common to all categories)

16) Do you get paid in cash or kind also?

17) Are you part of any trade unions/ political parties/social organizations?

18) Do you see your children working in this industry after you?

II. Unionized Labor/Non Unionized Labor

19) How many hours you work every day? How many days a week do you work? Do you worked for fixed hours or you can be called anytime?

20) In work, are there production expectations (in terms of quantities, etc.) for you to meet every day?

21) How long have you been working for this industry?

22) Prior to working here, have you worked in any other factories?

23) Are you a casual laborer or a permanent employee?

24) How much do you earn on an average? How often do you get paid-monthly, weekly, daily?

25) What kind of work do you do? Do you work in groups or do any specific work alone?

26) Have you undergone any specialized training?

27) Are you a member of any union? If so, how active you are in it?

28) How does your union work? What activities is it involved with?

29) How many members you have in your family? Do others in your family work in the same industry? Have your family worked generationally as coir factor laborers?

30) In your opinion has this industry undergone any changes during your association with this industry? What are these changes? Have you faced any constraints regarding work conditions with new changes of any?

III. Labor employed in other related activities (miscellaneous) associated with the industry:

31) How are you associated with this industry?

32) What work do you do? For how long have you been doing this work? Is it manual labor (odd jobs) or do you do work on any specific process?

33) Do you think you can find this type of work in other industries? Or is it specific to this industry?

34) How did you get employed in this industry? Did you get employed through some contacts/networks?

35) Are you part of any union within the coir industry or part of other unions?

Unit owners/ Co-operatives: Different modes of production have different outcomes for the developmental implication of the non-farm sector. Therefore, unit owners can vary from the petty commodity production level to capitalist enterprises to community/co-operative enterprises where owners/laborers have a joint stake in the production processes. Under this section I would interview unit owners at various levels (small scale enterprise/self owned units; medium or large scale and co-operatives) as the coir industry is spread out at various levels.

I. Self enterprise/self owned unit/ medium or large scale

36) Since when did you own this unit? When was it established?

37) Have you always been in this business? Did you build this industry by yourself or did you inherit from your father? What obstacles did you face running this business and how did you tackle them?

38) Do you own more than one production unit? If yes, do they produce the same products or different?

39) How many laborers do you employ? Are these permanent/ casual / local/ migrant laborers?

40) Is there any specialized work that needs particular skilled labor? Or can most of this work be done by manual/general labor?

41) What is the nature of the work organization?

42) Do you have any community linkages in terms of hiring workers? Do your workers belong to any specific community?

43) Are the majority of workers male or female? What is the wage structure?

44) Do you have any fixed code of conduct for your laborers? If yes, how do you fix them? Do you supervise the labor process yourself or you appoint managers/supervisors for it?

45) What are your expenses on other welfare aspects of labor-health, recreation, pensions, if any?

46) How do you get raw materials? Whom do you buy raw materials from? Are raw materials readily available?

47) How much do you produce on a daily basis? What do your firm specialize in- coir yarn/ products?

48) Whom do you sell these? Do you sell the products directly to the source you are selling to or are these collected on a wholesale basis by some distributor?

49) Does your factory utilize heavy machinery? What kind of machinery does your factory utilize?

50) How do you obtain credit to finance your unit and what are the various sources of credit- bank credit? Local credit from money lenders? Other sources of income? Any other specific source, specify? How are terms and conditions decided for obtaining credit from these particular sources?

51) Do you rely on any other smaller/bigger production units? Why do you rely on them?

52) How are prices determined for the products? Are these prices common for all firms at different scales?

53) How do you tackle conditions like low prices, low demand/high demand or market fluctuations?

54) What do you do in situations like higher wage demand by workers/ labor unions?

55) Do you get assistance from the government and in what ways? How does local political parties/ groups help your concern when you need it?

56) Does your production unit make good profit? How do you compare your unit with other units in the same industry?

57) Do you implement measures periodically to make yourself more competitive than your competitors? If so, can you name them and how are they implemented?

58) Does your unit produces for export market? If so, do you get any particular assignments or do you make products according to particular preference?

59) Is your unit a part of any producer's union? If yes, what is the nature of such affiliation?

60) Do you have other sources of income? If yes, what are they?

II. Co-operatives:

61) When was this co-operative established?

62) Under what conditions was it established?

63) Who took the initiatives to establish this?

64) How is the process of production organized?

65) What do laborers have in running this cooperative? Are they in decision making roles?

66) How much profit do you make?

67) Who are the buyers of your products?

68) How do you compete with private entrepreneurs? Are you on a strong ground in terms of competition?

69) How are conditions of labor in your cooperative different from those of other factories owned by private individuals?

70) Has the government played a key role in supporting your cooperative? In what ways? Historically?

71) Are there any welfare schemes your cooperative has for your employees?

72) Does the government contribute to welfare of coir workers?

73) Have you been experiencing crisis due to fluctuations in the market?

74) Where do you obtain credit for your operations?

75) Are you associated with political parties? Do you enjoy patronage from political parties?

b)Trade Union Leaders/activists: Trade union leaders or activists can provide an understanding to the nature of labor agency within the coir industry and the significant changes over time.

76) When was this trade union established?

77) What is the total membership of your union? Who are these members?

78) What is the political affiliation of your trade union? How have local political groups helped your union?

79) How has your union contributed to labor welfare?

80) How does your union attempt to win the support of government in negotiations and campaigns?

81) Has your union faced decline in activity in recent times? What do you think are the factors responsible for this and why?

82) How do you handle situations where employees get sacked at a considerable scale due to attempted mechanization by the employer?

83) What is your vision regarding industrialization and development in the non-farm sector in Kerala?

84) How has this vision guided the actions of your union so far? What programs do you undertake?

85) How do you see yourself contributing to social change?

c) Exporters: Since most non-farm activities including coir is produced for the external markets, exporters play an important role in the commodity chain.

86) Name, age, caste, religion, community

87) Are you a local resident or belong to another province?

88) Have you or your family always been into exporting? How long have you been into this business?

89) Do you export coir products only or do you have other export business too?

90) Do you employ any kind of labor in your establishment? Who are they? Is your family or relatives also associated with the daily activities of your establishment?

91) Who buys your products? Which places do you export your products? Do you have foreign collaborations?

92) How did you establish contact with your buyers? Do you sign any contract with your potential buyers? What are the specificities of such contracts in terms of product quality, financial negotiations etc?

93) Have your sales gone up in recent years or declined?

94) Do government policies contribute to promoting exports? How do you think it does so? Have you benefitted from any such government policy?

95) Do you invest in your establishment on your own? Or did you receive other financial support from the state, local/national banks or foreign collaborators?

96) For the production of the final product for export, how do you rate the machinery you use compared to your competitors? Do you use any imported machinery?

97) Are there research and development efforts to improve technology in the state? If so, who invests in this?

98) Where do you obtain these products from and how? Do you employ anyone to collect these products or do you buy them from some distributor?

99) Is subcontracting part of your production and procurement system? If yes, please describe?

d) Government Officials: It is a firm understanding that non-farm activities like the coir industry cannot operate without the intervention of the State. The State has been always instrumental in creating conditions and promoting such activities.

19) Why does the government think about non-farm employment like coir industry in Kerala? What are the various reasons for promoting it?
20) How do you think the coir industry fared over the years in comparison to other non-farm activities in Kerala?
21) How did the government tackle with the crisis in the coir industry after the economic reforms? What were the reasons for the crisis in this industry? What vision does the government have for the coir industry in the future?
22) What measures have the state both at the central and provincial level taken for promoting non-farm activities? What is the direction of these measures- a) welfare of laborers b) promoting exports c) research and development d) development of rural infrastructure etc?
23) What measures have been taken to boost the export drive of the country through these industries?
24) What role does the government have to play in increasing international collaboration in these industries through financial support or technological support?
25) In promoting non-farm over farm activities, do you think that the problems that affected the farm sector is also occurring in the non-farm sector now? If so, what are some these constraints? If not, how do you guarantee that such problems wouldn't affect the non-farm sector in the long run?

APPENDICES TO CHAPTER IV

Appendix 4.1. Growth Rate of GDP from Agriculture and Non Agriculture for Different Countries, 1980-1990/1991-2002

	Growth Rate of Agri. Employment		GDP Constant, 1995 (USD)*	
Countries	**1980-1990**	**1991-2001**	**1980-1990**	**1991-2002**
Bangladesh	1.468	0.96	3.607	4.857
India	0.956	1.348	5.551	5.83
Indonesia	2.396	1.086	5.901	3.019
Vietnam	2.456	1.306	4.82	7.316
Asia	**1.293**	**1.271**	**5.895**	**4.982**
Burkina Faso	2.096	1.75	3.505	3.885
Ghana	2.904	2.473	2.913	4.148
Senegal	2.014	2.057	3.038	4.154
Uganda	2.812	2.022	2.869	6.72
Zambia	3.026	1.548	0.99	1.259
SSA	**2.61**	**2.008**	**3.573**	**4.3**
Bolivia	1.395	2.018	-0.245	3.498
Brazil	-1.338	-1.513	2.712	2.714
El Salvador	0.114	1.01	0.222	3.983
LAC	**-1.112**	**-1.092**	**3.005**	**2.738**
	Growth Rate Agriculture, GDP, Constant 1995 USD*		**Growth Rate Non-Agri, GDP, Constant 1995 USD**	
	1980-1990	**1991-2002**	**1980-1990**	**1991-2002**
Bangladesh	2.079	3.213	4.283	5.437
India	3.075	2.671	6.756	6.868
Indonesia	3.525	1.79	6.705	3.3
Vietnam	2.768	4.16	5.923	8.481
Asia	3.956	2.564	7.093	5.703
Burkina Faso	3.04	3.099	3.701	4.246

Ghana	0.98	3.507	4.664	4.574
Senegal	2.732	2.085	3.123	4.612
Uganda	2.096	3.894	3.807	8.996
Zambia	3.516	3.712	0.668	0.93
SSA	3.002	3.436	4.023	4.694
Bolivia	1.489	2.502	-0.542	3.672
Brazil	2.747	3.46	2.711	2.649
El Salvador	-1.116	0.847	0.51	4.479
LAC	2.244	3.387	1.978	2.68
	Growth Rate of Agri. Value Added/ Agri. Employment*		**Growth Rate Non-Agri./ Non-Agri Workforce***	
	1980-1990	**1991-2001**	**1980-1990**	**1991-2001**
Bangladesh	0.61	2.248	-0.265	-0.912
India	2.119	1.653	3.106	3.41
Indonesia	1.129	0.771	3.136	-0.272
Vietnam	0.284	2.885	1.654	5.732
Asia	2.703	1.523	3.457	1.987
Burkina Faso	0.943	1.327	3.893	0.129
Ghana	-1.924	0.993	1.017	1.6
Senegal	0.718	0.713	-1.373	0.799
Uganda	-0.786	1.784	-0.023	5.347
Zambia	0.491	2.661	-1.251	-5.783
SSA	0.397	1.484	0.655	0.859
Bolivia	0.093	0.577	-4.316	0.487
Brazil	4.086	4.823	-2.376	0.113
El Salvador	-1.23	0.014	-2.912	0.32
LAC	3.908	4.338	-2.739	0.084

* data for Vietnam available only from 1984; Uganda from 1982

** first available data for Vietnam is 1985

Source: Byerlee et al, (2005), World Bank Authors' calculations, based on FAOSTAT and SIMA

Appendix 4.2. Composition of India's Exports 2003-4/2005-6 in Percentages

Item	2003-4	2004-5	2005-6
Primary Products	**15.5**	**16.2**	**16**
Agriculture and Products	11.8	10.1	9.9
Ores and Minerals	3.7	6.1	6
Manufactured Goods	**76**	**72.7**	**69.9**
Leather and manufactures	3.4	2.9	2.6
Chemicals and related products	14.8	14.9	14.1
Engineering goods	19.4	20.8	21
Iron and Steel	3.9	4.7	3.4
Manufacture of Metals	3.8	4.1	4.1
Machinery and Instruments	4.3	4.5	4.7
Transport equipment	3.1	3.4	4.4
Electronic goods	2.7	2.2	2.1
Others	**1.6**	**2**	**2.3**
Textile and Textile Products	20	16.2	15.6
Cotton yarns and fabric	5.3	4.1	3.8
Natural Silk and Fabric	0.6	0.5	0.4
Manmade yarns and fabric	2.8	2.3	1.9
Manmade stapler fabric	0.1	0.1	0.1
Woolen yarns and fabric	9.8	7.9	8.2
Readymade garments			
Jute and jute products	8.2	0.4	0.3
Coir and coir products	0.4	0.3	0.3
Carpets	0.1	0.1	0.1
Gems and jewelry	0.9	0.8	0.8
Handicrafts	16.6	16.5	15.1
Other manufactured goods	1	1	1

Source: Directorate General of Commercial Intelligence and Statistics, as cited in Panagariya, A (2007).

APPENDICES TO CHAPTER V

Appendix 5.1. Status of Coir Co-operative Societies in Kerala, 2006-7

Type of Societies	No. of Societies (as of 31.3.2006)	No. of Societies (as of 31.3.2007)
Primary Coir Co-ops		
a) Functioning	362	342
b) Not yet started functioning	6	6
c) Problematic	105	124
Manufacturing Societies		
a) Functioning	34	33
b) Not yet started functioning	18	14
c) Problematic	6	9
Small Scale Producer's Societies		
a) Functioning	13	15
b) Not yet started functioning	7	10
c) Problematic	4	3
Husk Procurement and Distribution		
a) Functioning	1	1
b) Not yet started functioning	2	0
c) Problematic	0	1
De-fibering		
a) Functioning	28	18
b) Not yet started functioning	26	23
c) Problematic	19	31
Marketing		
a) Functioning	438	
b) Not yet started functioning	59	
c) Problematic	134	

Source: Economic Review, Kerala State Planning Board

APPENDICES TO CHAPTER VI

Appendix 6.1. Production and Productivity of Coconut in Kerala and India, 1991-1992 to 2007-2008

Year	Area (' 000 ha)		Production (Million Nuts)		Productivity (Nuts/Ha.)	
	Kerala	India	Kerala	India	Kerala	India
1991-92	863	1529	4641	10080	5377	6593
1992-93	877	1538	5124	11241	5843	7310
1993-94	882	1635	5192	11975	5885	7324
1994-95	911	1714	5336	13300	5858	7760
1995-96	914	1833	5155	12952	5638	7066
1996-97	902	1891	5276	13061	5849	6908
1997-98	884	1898	5210	13096	5891	6902
1998-99	882	1755	5132	12536	5817	7145
1999-00	925	1768	5680	12129	6140	6860
2000-01	926	1840	5536	12597	5980	6847
2001-02	906	1890	5479	12822	6049	6776
2002-03	899	1922	5709	12535	6349	6523
2003-04	898	1934	5876	12178	6540	6298
2004-05	899	1935	6001	12830	6673	6632
2005-06	898	1950	6326	14811	7046	7608
2006-07	873	1940	6054	15840	6935	8165
2007-08	802	NA	5564	NA	6935	NA

Source: Directorate of Economics and Statistics, Government of Kerala, 2012.

Appendix 6.2. Production of Coir and Coir Products in India, 1999-2000 to 2009-2010 (in Metric Tons)

Particulars	**1999-2000**	**2000-01**	**2001-02**	**2002-03**	**2003-04**
1.Coir Fiber	256000	364000	369400	353700	364000
2. Coir Yarn	222300	233400	236900	226800	232500
3. Coir Products	64900	71500	72575	75750	77900
2004-05	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**
430000	410000	430000	437800	491000	391450
2480000	280000	288000	290000	292900	221900
98000	98000	170000	172000	173550	130300

Source: Ministry of Agro and Rural Industries, India.

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